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TRANSACTIONS

OF THE

STATE MEDICAL SOCIETY

AMERICAN MEDICAL ASSOCIATION LIBRARY

OF KANSAS.

Vol. I.

PUBLISHED BY THE SOCIETY.

LAWRENCE, KANSAS:
JOURNAL WATER-POWER BOOK AND JOB PRINTING HOUSE.
1884.

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BOSTON MEDICAL LIBRARY ASSOCIATION

ACT OF INCORPORATION.

An Act to Incorporate the Kansas Medical Society.

Be it enacted by the Governor and Legislative Assembly of the Territory of Kansas:

Section 1. Amory Hunting, S. B. Prentiss, J. P. Root, A. Fuller, C. F. Kobb, J. W. Robinson, J. B. Wheeler, L. C. Tolles. S. C. Harrington, A. Danford, C. E. Minor, J. B. Woodward, W. Madison, J. H. Phelps, O. Brown, Charles Robinson, M. F. Holladay, H. J. Canniff, A. J. Ritchie, M. Baily, J. M. Pelot, H. H. Beals, J. G. Blunt, T. Linsey, G. W. Beaumont, J. Leigh, A. Newman, H. Harttmann, Wm. Graham, and their associates and successors, who shall be elected to membership as hereinafter provided, are hereby constituted a body corporate and politic by the name of The Kansas Medical Society, and shall have perpetual succession forever. Said Society may have a common seal, and change or alter the same at pleasure.

Sec. 2. That members of said Society, in their corporate capacity, may elect such officers as they shall judge necessary for its government and the management of its affairs, determine the name, power, duty and term of office of each; also the time and manner of said elections.

Sec. 3. Said, Society, by and in their corporate name, may have all the rights, privileges and powers of a natural person in law and equity.

Sec. 4. Said Society may elect such persons to membership as they shall judge proper, and shall have power to expel, suspend or disfranchise the same, as members, from all the rights and privileges of the Society; but such expulsion, suspension or disfranchisement shall be by a vote of two-thirds of all the members present at a regular meeting of said Society, of which due notice shall have been given.

Sec. 5. Said Society shall have full power to make and enforce by-laws, and impose and collect at law any reasonable

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fines, not exceeding fifty dollars, as may be provided in said by-laws, for any and every violation or infraction thereof.

SEC. 6. Said Society shall issue certificates of membership to all its members, under such regulations as its by-laws may prescribe, and may also grant licenses to all respectable physicians, non-graduates, who shall, on examination, be found qualified for the practice of medicine and surgery, or either, to practice those branches for which they are found qualified.

SEC. 7. Any three members of said Society may organize county or auxiliary societies in any county of this Territory; and said auxiliary society, when so organized, shall have all the powers and privileges, in the corporate name which they may adopt, that are conferred by this act upon the Kansas Medical Society; and the officers of said auxiliary societies shall be honorary members of the Kansas Medical Society.

SEC. 8. A meeting of the corporators, or a part thereof, shall be held in Lawrence, on February 10th, A. D. 1859, for the purpose of electing the first officers and completing the organization.

SEC. 9. This act to take effect and be in force from and after its passage.

A. LARZELERE,
Speaker of the House of Representatives.

C. W. BABCOCK,
President of the Council.

Approved February 10, 1859.

S. MEDARY, *Governor.*

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TRANSACTIONS OF THE KANSAS MEDICAL SOCIETY.

The corporators of the Kansas Medical Society assembled in accordance with the provisions of the charter granted by the Legislative Assembly at its present session, to elect its first board of officers, and to transact all necessary business.

Dr. Alonzo Fuller was called to the chair and Dr. S. C. Harrington chosen secretary *pro tem.*

On motion of Dr. Harrington the following by-law was adopted:

"The officers of this society shall consist of a President, six Vice Presidents, Corresponding Secretary, Recording Secretary, Treasurer and Librarian, to be chosen by ballot and to hold their offices for one year and until their successors are elected."

On motion of Dr. Wheeler, the society proceeded to the election of officers for the permanent organization of the society with the following result:

For President, Dr. S. B. Prentiss; Vice Presidents, Drs. A. Hunting, J. P. Root, J. P. Robinson, A. J. Ritchie, C. F. Kobb and M. F. Holiday. For Corresponding Secretary, Dr. Albert Newman; Recording Secretary, Dr. J. B. Woodward; Treasurer, Dr. A. Fuller, Librarian, Dr. A. Hartmann.

The president took the chair and on motion, Drs. Alonzo Fuller, M. Hartmann and Albert Newman were appointed a committee to draft by-laws and report at the next meeting of the society.

On motion of Dr. Hartmann, Dr. J. B. Wheeler was appointed a committee to prepare and report a code of Ethics at the next meeting of the society.

On motion of Dr. Wheeler, the president was authorized to call the next meeting of the society as early as possible for the

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adoption of By-Laws, a Code of Ethics and the transaction of any other business thought proper.

On motion of Dr. Wheeler the society adjourned.

Dr. S. B. PRENTISS,
President.

J. B. WOODWARD,
Secretary.

LAWRENCE February 10, 1859.

Pursuant to a call by the President, the Kansas Medical Society held its annual meeting at the Eldridge House in Lawrence, on Thursday evening, February 23, 1860.

Meeting called to order by the President.

Journal of last meeting read and approved.

Drs. A. Fuller, A. Newman and M. Hartmann, committee on rules for the government and regulation of the Society, presented a report.

On motion of Dr. Tolles, the rules for the government and regulation of the society were adopted.

Dr. Wheeler, from committee on Code of Ethics, recommended the adoption of the National Code, which was agreed to.

On motion of Dr. Wheeler, the society proceeded to the election of officers for the ensuing year, with the following result:

For President, Dr. J. P. Root; Vice Presidents, Drs. J. B. Wheeler and J. H. Phelps; Recording Secretary, Dr. J. B. Woodward; Corresponding Secretary, Dr. A. Newman; Treasurer, Dr. S. B. Prentiss; Librarian, Dr. M. Hartmann; Censors, Drs. A. Fuller, L. C. Tolles, S. B. Prentiss, J. B. Woodward, C. F. Kobb, T. Lindsey, A. J. Ritchie, J. W. Robinson and J. G. Blunt.

On motion of Dr. Newman, the vote by which the by-laws were adopted was reconsidered, and the following persons were elected members of the Society:

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Drs. J. A. Benjamin, Herriford, Kerr, Nelson and J. W. Scott.

On motion of Dr. Newman, the by-law adopted at the last meeting was repealed, and those reported by the committee were then adopted.

Dr. S. B. Prentiss was appointed Orator for the next annual meeting and Dr. J. B. Wheeler substitute.

Drs. S. B. Prentiss, L. C. Tolles and J. B. Woodward were appointed Executive Committee for the ensuing year.

Voted to hold the next annual meeting of the Society at Lawrence on the last Thursday in February, 1861.

On motion, the Society adjourned.

S. B. PRENTISS, M. D.,
President,

J. B. WOODWARD,
Secretary,

Lawrence, February 23, 1860.

Pursuant to a call by the president the Kansas Medical Society met at the Eldridge House, Lawrence, on the last Thursday in February, A. D. 1861, at 7 o'clock, P. M.

President in the chair.

Journal of last meeting read and approved.

On motion of Dr. Newman the society voted to meet on the last Wednesday in January at such place as may be designated by the president.

On motion adjourned.

J. P. ROOT, M. D.,
President.

J. B. WOODWARD, M. D.,
Secretary.

LAWRENCE, February 27, 1861.

Pursuant to a call by the president the Kansas Medical Society met at Topeka on the 31st day of January, 1866. Not

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being a quorum present adjourned to meet at Lawrence on the first Tuesday in April, 1866, 10 o'clock, A. M.

J. P. ROOT, M. D.,
President.

M. BAILEY, M. D.,
Secretary pro tem.

LAWRENCE, KAN., April, 1866.

Pursuant to call the Kansas State Medical Society met at Lawrence, April 3d, 1866, at 3 o'clock P. M. The president and vice president being absent, Dr. A. Fuller was elected president *pro tem.* Quorum present.

On motion the act of incorporation and the proceedings of previous meetings were read. Dr. S. B. Prentiss, chairman of the Board of Censors, reported the following names for membership, viz: Drs. T. Sinks, G. W. Hogeboom, A. Campbell, J. W. Brock, G. C. Crook, O. P. Barbour, C. A. Logan, H. Buckmaster, C. C. Shoyer, S. B. Davis, W. B. Carpenter, L. Houston, —Boling, M. S. Thomas, I. O'Brien, A. C. VanDuyn, G. E. Budington, G. W. Walgamott, O. F. Searl, Charles Neuman, J. L. Prentiss, S. C. Brown, H. P. Woodward, R. Aikman, —Sanders, and D. W. Stormont.

On motion of Dr. Newman they were duly elected. Moved and carried that the corporators sign the by-laws and pay the fee required of new members. Dr. Prentiss moved that a committee of three be appointed to examine the by-laws and report necessary amendments. Carried. The chair appointed Drs. Prentiss, Newman and Logan.

Moved and adopted that a committee of three be appointed to confer with the Regents of the State University in regard to the establishment of a medical department thereto. Drs. Sinks, Newman and Stormont were appointed.

On motion Drs. Logan and Newman were appointed a committee to arrange business for the evening.

On motion adjourned until 7 o'clock.

The society met according to adjournment, president Fuller in the chair. Minutes of the afternoon session read and ap-

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proved. Dr. Logan, from the committee on Business, submitted the following report:

"The undersigned committee on Business would respectfully report that the following points should claim your attention:

1st. In accordance with the object had in view in the appointment of a committee to revise the by-laws, the following amendments should be laid on the table to be acted on at the next session, viz: Amend the last section of the by-laws by striking out all after the word provided.

2nd. The following committees should be appointed to report at the next session, viz:

A committee on Practical Medicine.

A committee on Surgery.

A committee on Obstetrics.

A committee on Climatology.

A committee on Zymotic Diseases.

3d. Medical and Scientific communications.

4th. The appointment of a committee to procure the passage of a law to print the transactions of the Society at the expense of the State. Also to amend section 7 of the act of incorporation by striking out all after the word "this" in the third line and adding "State, under such rules and regulations as may be prescribed by the State Society."

5th. Election of Officers.

Respectfully submitted,

C. A. LOGAN.
A. NEWMAN.

On motion, the report was received and adopted.

On motion, the Society proceeded to the election of the Standing Committees, to report at the next meeting, with the following result:

Practical Medicine—Drs. Stormont, Newman and Brock.

Surgery—Drs. Bailey, J. L. Prentiss and Davis.

Obstetrics—Drs. Logan, Fuller and Brown.

Climatology—Drs. Sinks, Bailey and Root.

Zymotic Diseases—Drs. Hartmann, Walgamott and S. B. Prentiss.

The committee appointed to carry out the provisions of the

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4th article of the above report consists of Drs.. Robinson, Bailey and Stormont.

On motion, the Society proceeded to the election of officers for the ensuing year. The following gentlemen were elected, viz:

For President, Dr. C. A. Logan; Vice Presidents, Drs. A. Newman and Bailey; Recording and Corresponding Secretary, Dr. D. W. Stormont; Treasurer, Dr. J. L. Prentiss; Librarian, Dr. O. F. Searl; Censors, Drs. Woodward, Hartmann and Fuller of Lawrence, Drs. Sinks, Brock and Buckmaster of Leavenworth, Drs. Bailey, Stormont and Brown of Topeka.

Dr. Logan, the President elect, then read his inaugural address.

Dr. Sinks read an interesting essay on Climatic Influences.

Dr. A. Newman read an excellent paper on Cholera.

On motion, the thanks of the Society were tendered to Drs. Logan, Sinks and Newman for their able and interesting papers.

It was moved and carried that the next meeting of the Society be held in Leavenworth, at such time as the President may elect.

On motion, the society adjourned to meet at the call of the President.

J. B. WOODWARD,
Secretary.

By order of the President, Dr. Logan.

Dated October 30, 1866.

The next meeting was appointed to be held on Wednesday, 3d day of April, 1867.

D. W. STORMONT,
Secretary.

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ADDRESS BEFORE THE KANSAS STATE MEDICAL SOCIETY.

BY C. A. LOGAN, M. D., PRESIDENT, APRIL 3D, 1867.

Gentlemen of the State Medical Society:

By the constitution of your association, it is made the duty of the President, upon retiring from office, to deliver a valedictory address. It is undoubtedly a wise provision, which thus requires of the presiding officer, to present for the benefit of the members the matured fruits of his observation, during the term of his incumbency. Having had his attention directed to the wants and necessities of the profession, he is, of all others, the most fitted to give wise counsel in relation to those wants, and the most wholesome advice as to the requisites for supplying them.

Though the corporate organization of this association dates from the year 1858, yet its actual existence may perhaps be said to have begun in April of last year, when having met in Lawrence, after its dormant sleep, measures were taken to put it upon a permanent basis. Pursuant to the adjournment we have again assembled for the purpose of continuing the important work then commenced, and of laying upon a common altar, the ripe garnerings of our individual experience.

In the absence of sufficient material to render a retrospetive glance of the profession in Kansas interesting, or even valuable, I trust I may be permitted to offer for your consideration some desultory reflections in connection with the practical topics of the profession.

Medicine next to religion, is the most exalted subject which can occupy the mind of man. Next to a care for the soul, a maintenance of the health of the body, holds an undisputed place. This nobility of the healing art has been acknowledged from the most remote periods in the history of man. In the early morning of the world indeed, when medicine as a science was utterly unknown, and consisted simply of a

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compilation of facts, based upon experience, acquired and traditional, the offices of the priest and physician were united, being considered justly correlative subjects.

These observations, however, are to be considered as applying with force only, to medicine or the cure of disease, as an abstract idea, entirely disassociated with *systems* or *methods* of cure.

It is no less true than strange, that all of the great truths of nature have been eliminated from the depths of ancient error, through the most violent and persistent opposition. The primitive idea that the earth was a flat surface and comprehended an area only, which is now known to have been but a small fragment of its real dimensions, was turbulently excited when assailed by the intimation that the earth was a sphere, and a revolving instead of a stationary body. This general hostility upon the part of the masses to the adoption of new ideas and the relinquishment of old ones, was the same in the days of Galileo as of Jenner; when the one was persecuted for annunciating an infallible truth aud the other derided for the discovery of one of those great facts in medicine which comprehend in a single idea, an amount of good fully equal to that resulting from generations of research in other directions.

Such, without doubt, has been the general temper and constitution of the human race through all ages; though fortunately for the scientist of our day, illiberality and the spirit of persecution have of necessity decreased in an exact inverse ratio to the emergency from a rude and uncultivated state of society.

Medicine, in common with all sciences depending for appreciation upon a high intellectual development, has been elevated from the condition of a mere pretension, resting upon a simple collection of dogmatic aphorisms, to the brilliant proportions of a far reaching science, though the same spirit of incredulity has marked the transition of a world from the age of physical domination to that of intellectual supremacy.

Slowly, slowly, has the mere art of administering tested simples for relief in accordance with experience in similar cases, fancied or real, advanced step by step through mazes of

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error and speculation to the condition of a rational system of cure founded upon an intimate knowledge of the animal machine in its normal state, together with its aberrations in disease. While the medicine of our day, however, rests its claims as a science upon the broad basis of fixed and immutable principles, and from the certainty with which specific results follow specific acts, may be classed as inductive in its relations, yet it is far from having reached that degree of perfection which shall necessarily attend it, when—as in time must be the case—the anatomist shall have laid bare the ultimate composition of the human economy, and the physiologist have arrived—in appreciation of the life-movement—at that point which separates the finite from the infinite, the material from the immaterial, the substance from the spirit.

These reflections lead us to the remark that medicine considered in its immediate object, the restoration of perverted functions to their normal balance, can never in the nature of things, reach to absolute perfection. The Great Infinity at whose command the admirable mechanism of life was instituted, ordained that, though it should rank as the crowning glory of His handiwork, there should be a fixed limit to its duration; a time for its operations to cease; which time arrives with as much certainty to all animate things as the transition from day to night, or the precession of the equinoxes.

In this, medicine differs from all other of the arts and sciences, which, through the advance of knowledge may reasonably be expected to reach, in time, that harmony of completeness, which shall render their objects susceptible of a mathematical attainment.

No such hope can ever animate the physician. The most that is possible for him to accomplish will be measured by the power to extend the span of years until it shall reach the natural period, when the inevitable lapse of time shall proclaim the harvest of life to have arrived, and shall send the chilling blasts of winter to end its exhausted fruitfulness.

Now it is from this acknowledged futility of our science in uniformily preventing death, that the true principles of rational medicine have been subjected to so much opposition, and that

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mercenary men have been enabled to succeed in their commercial designs by advocating false principles, and in duping the people into an apostacy from the true logic of medication.

It is worthy of remark that there are no quacks in the sciences called exact. There can be no astronomical charlatan to compute a parallax upon any other than recognized principles, nor can the settled laws of nature be controverted by a money-seeking pretender, ignorant of the primitive conditions upon which they rest. Notwithstanding the discouragements to the progress of the science contained in these reflections, the fact is patent, that it has steadily advanced from an infancy of mysticism and superstition, to a youth marked by an elaborateness, which, considering the subject dealt with, far exceeds that of any other branch of learning known to man. What aspect it may present when the faculties and resources of man shall have carried it to the *ultima thule* of its possible perfection can, perhaps, be conjectured from a comparison of its present with its primitive status.

In viewing the extensive radiations of the science from the nucleus of its pristine idea, which consisted simply in specific remedies for individual diseases, while we may felicitate ourselves upon the increased range and greater positiveness of our therapeutics, we cannot but be struck with the results already gleaned, and those promised from that branch which has in view, not the cure of established disease, but its prevention in communities and individuals. The importance of this portion of the subject of medicine is demonstrable by a mathematical computation, founded upon the relative amount of sickness and death in the same communities at different epochs of their history.

This branch of medicine which has been denominated Hygiene or Health has received its greatest impetus within the last fifty years, and in its general object is quite as important as the healing art proper — the latter dealing with the human system in its diseased and altered condition, the former with it in its normal or typical state. Nor is the subject of Hygiene behind its twin-sister in extensiveness of range or generality of relationships. In settling its problems, and in fixing the deducible conclusions therefrom, the whole subject

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of etiology or the causation of disease is opened in all its vastness, and becomes the major factor in the solution of its intricate questions.

When we reflect that man is a created being, with a complex and most wonderfully constructed organism, but so admirably adjusted in its mechanism as to insure the normal performance of the functions necessary to constitute an independent living being; when further we remember that, when not interrupted by disturbing influences, these functions are regularly performed for a period of time, the end of which period is supposed to mark the natural exhaustion and wearing out of the machine, we can readily comprehend that the importance of the subject of Health is exactly measured by the difference between the *natural* and the *actual* life of each individual.

Starting with the proposition, that the typical man is a piece of mechanism, which, if surrounded by its appropriate influences, and managed according to the established laws of its constitution, will continue regularly to perform its offices for a definite length of time, the sanitarian seeks to inquire fully into the conditions which controvert a healthy play of the functions, and at length so interrupt their offices or spoil their texture as to produce a stoppage of the life-movement before the allotted time. The hope that he will ever be successful in bringing back humanity to its typical idea of perfection — when man born in the vigor of untainted health, shall peacefully walk across his allotted span, and then expire from mere decay of his powers and functions — from the very nature of things is not to be entertained for a moment; but that the premature mortality of the human race from known and preventible cause of disease, is from one-third to one-half greater than it would be if the already settled laws of public and private health were sedulously observed, there can be no reasonable doubt. Thus much has already been proven as a resultant of our knowledge upon the subject, to what greater average of life the revelations of science may enable humanity to attain, time alone will determine. Enough has already been developed to encourage increased investigation in a field promising such rich returns.

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To realize the gigantic results accruing to human life from the operations of what has likewise been called, from its analogy to the objects sought to be accomplished by the healing art, *Preventive Medicine*, it will only be requisite to view the history and ravages of a single disease — the cholera. Every American has learned with pride, that his own country has made the demonstration to the world, that though curative medicine has thus far been impotent to shear it of its horrors, yet that preventive medicine can grapple with the monster and strangle it in its birth. Whatever theory we may entertain in reference to the etiology of cholera, its mode of propagation, etc., there can be but one sentiment as to the ability of the sanitarian to limit its ravages; and this power being conceded it almost necessarily follows that it is susceptible, *theoretically* at least, of entire prevention. Whether this consummation will ever be practically reached, however, is a problem for the future to solve; for being confessedly, a disease born out of the worst hygenic influences, its eradication involves a scientific regulation of individual life and its surroundings, which it were difficult to believe possible to ever be reached by poor, weak human nature. But notwithstanding this, it is a true philosophy to mitigate an evil though it cannot be entirely prevented, and this, as before remarked, is the purpose of the sanitary effort.

The instance now cited, relates to the devastations of a single disease, and can therefore be fully realized; but, as involving a statistical knowledge, it is more difficult to comprehend the fact of the general health-rate of whole communities having been so greatly bettered as to have lengthened the average life of its people from one-fourth to one half greater than before the institution of health laws and the inculcation of health precepts. The amount of unnecessary suffering and disease abolished in the attainment of this brilliant result, can only be suggestive of the immense harvests to be gleaned in the prosecution of such investigations.

From a consideration of the foregoing reflections, we shall arrive at the true status of medicine in our day. We shall learn that its objects are not gauged simply by the effort to cure established disease, but also to comprehend the methods

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of averting it. This is truly a noble office and he who fills the measure of its requirements, ranks above kings and potentates and is a worthy disciple of Him whose life was an expiatory sacrifice for the sins and follies of a degenerate world.

It has long been a perplexing question with the honest physician, how best and most speedily to forever silence the horde of unprincipled men who in all ages and in all times have speculated in the sufferings of afflicted humanity. It is a sad commentary upon the degeneracy of human nature to acknowledge that there are to be found those, who, taking advantage of the credulity and ignorance upon the subject generally existing among the masses, are ready to run the chances of severing the dearest relations in life, to satisfy their greed and worldly aspirations. The subject has ever received the careful attention which its importance demands, but while many different plans have been suggested as a remedy for the unholy traffic in human life none has succeeded, it is believed, in mitigating the evil.

True it is that false professors like false prophets, require but a definite time to exhibit their unworthiness and work out their own ruin; but the principle of quackery is a very phœnix; no sooner dying in one form than it is ready to rise again and take wing over more extensive plains, and feast upon the fruitfulness of more productive fields.

It is but necessary to look abroad and view the multifarious operations of quackery as practiced in our own country, to realize the extent of the drain upon the world's population through this channel alone. The public prints teem with glaring advertisements of various compounds, representing them to be specifics for almost every disease in the category of ills, however diverse in nature they may be, or however modified by individual constitution. One and the same remedy now before me, for instance, is vaunted as a certain cure for acute pneumonia, pleurisy, etc., and likewise for all diseases produced by a debilitated state of the system; or, to analyze its operation fairly, it comprehends the action of a sedative and a stimulant in the same remedy.

Now, in the indictment against these harpies there is to be included a count, frequently overlooked in the sum total of

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mischief for which they are responsible. It goes beyond the fact of their remedies usually consisting of the most villainous compounds, and finds expression in the number of those, who, having relied upon their false and flattering promises, are placed beyond the power of rational skill through the ravages of unrestrained disease, which in many cases a timely interference might have averted.

As a striking example of the fact here represented, may be adduced the fatal disease popularly known as consumption. All that science has succeeded in effecting against this dread foe, pertains to the early stages of the malady. And yet, there are to be found hundreds of remedies guaranteeing a cure for the disease in any of its stages. All medical men are painfully cognizant of the multitude of lives frittered away in reliance upon these delusive promises.

Perhaps as atrocious a part of this nefarious traffic as any other, relates to the parties who assist in promoting it. It is quite a common practice among newspapers containing patent medicine advertisements to assist in the bad work by puffing editorials, giving, if not an expressed, at least an implied endorsement of their pretensions. It is claimed, as an excuse, that no ill results from such articles, as everybody understands them. This statement is as false as it is pernicious, and but impresses the conviction upon honest folks, that a press which publishes acknowledged untruths affecting so sacred a thing as the health of the community, had better be shorn of its powers for mischief.

But the press is not alone in the capacity of ally to these schemers against the public life and property. There are to be found, in every community, persons who are base enough to attach, whatever of respectability may belong to their names, as an endorsement of the extravagant claims of nostrums, and of the pretensions of itinerant celebrities. Among these persons, it is to be said with shame and remorse, are at times to be seen a representative of the noblest office on earth, an office descended from the Great Infinity himself. It is pleasing to know, however, that these instances are not frequent, and when we reflect that a Judas has been found ready to betray his Master for thirty pieces of silver, it is not so surprising

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that in our day, we should occasionally find a minister ready to betray his brother for an equivalent amount in greenbacks.

In this connection, I cannot forbear mentioning the case of a Minister of the Gospel, who seems to have gone into this cheating business upon his own account. This is a person who advertises in all of the principle papers, that, anxious to benefit suffering humanity he will send upon receipt of a postage stamp, a recipe which, having cured consumption in his own case, will infallibly cure it in that of others. Philanthropic individual! The first thought that strikes one is to wonder why he didn't publish the recipe at once, instead of taking the roundabout course he does. The mystery is explained, however, when the recipe arrives; this consists essentially of the hypophosphite salts, combined with a few unimportant articles, among which is *one that is not ordinarily to be found at the drug stores* because of its disuse as a remedial agent. The circular accompanying the recipe is careful to inform the sufferer, that if any of the articles cannot be obtained where he may reside, that he, the *benefactor*, will furnish it at the moderate price of *two dollars*. In the same circular is to be found an advertisement of some *religious books*, of which the reverend gentleman is the author and seller, together with endorsements from fellow-clergymen. When we remember how thoroughly the hypophosphite treatment as a *specific* for consumption is exploded, perhaps the religious manuals may be considered as a very appropriate accompaniment.

But the making and vending of patent medicines, though fraught with untold mischief to the credulous dupes who buy and take them, is not so fatal to the public life as another engine of even greater destructive power, because reaching a class of people whose better sense teaches them to ignore the patent cure. The various systems of irregular practice are referred to.

These irregular systems have varied at different periods in accordance with the less or greater degree of general intelligence, from the mystic-charm system, through all gradations up to the most refined and plausible fallacies ever invented for the gulling of poor human nature.

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From the very constitution of humanity, these things will probably exist to a greater or less extent until the end of time; but there can be no reasonable doubt that as the world grows in general intelligence, all systems of imposture whether medical or otherwise, will, perforce, be more difficult of accomplishment.

If this view be well founded, it would then appear that the best means for guarding the people from medical imposition, would be to educate them *en masse* in the leading ideas relating to the human constitution; the principles of life and the requisites for its healthy existence. It has been said that "a little knowledge is a dangerous thing." and this precept is as true medically considered as when applied to any other subject; but a general information upon the natural constitution of the body, with its operations in health and disease, would have this advantage—that the medical impostor would be compelled to know more of this subject than the person he professes to treat or his ignorance would be exposed at once. By thus compelling even quacks to know something of the general principles of medicine, much less harm would be done by them than is now perpetrated through the base ignorance of the pretenders found in every community.

Further, there would be less self-dosing either with patent medicines or others, in the community at large; for having something of a knowledge of a machine so delicate in its construction people would be less likely to tamper with it themselves. But perhaps the greatest good of all would result from the inculcation of laws necessary to be observed to maintain a sound state of mind and body. The general possession of this knowledge would eventually lead to the universal establishment of sanitary observances both public and private; and this consummation, as before remarked, is one of the great efforts of the enlightened medicine of the nineteenth century.

It has given me much pleasure to observe that the Kansas State University, with the most enlarged perception, has created a chair devoted to the teaching of sanitary science. This is certainly a most laudable step, and if followed by nothing further than the incorporation in the college curricu-

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lum of the principles of public Hygiene, will undoubtedly be productive of the best results. But it is to be hoped that the reform may be made complete by the establishment of a chair or chairs teaching, not nominally but really, the *general principles of anatomy, physiology, pathology and therapeutics;* and that a good knowledge of these branches shall be as requisite for the degree of the institution as of any other of the studies embraced in a collegiate education. This being done, the University may appropriately inscribe over its portals, as a fitting expression of its principles, the primitive injunction of the Greek schools of philosophy:

"KNOW THYSELF."

These suggestions may be received with a smile, and be considered by some, as detrimental, if carried out, to the interests of the profession. That their general and *bona fide* adoption in the literary colleges of our country, would do more to eradicate quackery than all the legislation that can be made upon the subject, I think will be apparent to any impartially reflecting mind.

* * * * * * *

In conclusion, permit me to say, that we have met under auspicious circumstances for building up a most useful State organization. Four county societies have been formed since our last meeting, and are expected to have delegates upon the floor. By a united effort, a society may be built up which will inure in the highest degree to the good of the profession, and through it to the people, to whose service the physician is consecrated.

Upon behalf of the representatives of legitimate medicine in Leavenworth, I cordially welcome you to the city. Let us hope that our deliberations may be attended with the utmost harmony, and that when we again separate to return to our respective fields of labor, it will be with the feeling that each one of us has received some benefit from our union.

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REPORT OF THE COMMITTEE ON SURGERY.

BY M. BAILEY, M. D., TOPEKA.

After some consideration of the various subjects of interest to the practical surgeon, your committee are of the opinion that the medico-legal subject of malpractice deserves, as much as any other, the attention of those of the medical profession who practice surgery. Nevertheless they ought, perhaps, to offer an apology for devoting their entire report to the subject of malpractice. But they trust that the increasing importance to the surgeon, its intimate connection with his every-day practice, the responsible and precarious position in which he is placed, and the facility with which the earnings of a lifetime may be swept from him for the most trivial and unavoidable cause, are sufficient reasons for the feeble efforts of your committee to try and awaken at least an interest in this matter. So liable is he who practices surgery to be called upon to defend his practice and his property against suits for alleged malpractice, that many of the most worthy members of the profession give up entirely the practice of surgery and devote their whole attention to other branches of the profession, not being willing to endanger their reputation and property, if fortunate enough to have any, by following a business, which, without any such risk, is one of poor compensation.

While it is right and just that those who pretend to practice surgery should have a good medical education, the facility with which damages can frequently be obtained in cases of failure to obtain a perfect cure, is sufficient to deter the worthy general practitioner, from devoting that attention to and taking that interest in the treatment of surgical cases, especially *fractures* and *dislocations*, which they really deserve; the consequence is that in the country and small towns, surgery is too apt to fall into the hands of that "reckless, impudent, ignorant, and irresponsible class," which abounds in, or rather hangs on, our profession. They are always ready to do anything to make a show and display before the public; and as the practice of surgery, especially when the knife can be

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used, gives the best of opportunities for "puffing," and feeling no responsibility beyond the first effect, they grab eagerly for every case within their reach.

We would not, were it in our power, do anything to shield the profession from just punishment nor in any manner justify bad practice; but on the contrary, by advocating a thorough investigation into, and acquaintance with this subject of malpractice, we hope it will have a tendency to procure justice to the worthy, honest and skillful surgeon though he may fail to cure, *from unavoidable causes inherent in his art, for which he is not responsible*, and in punishing arrogant quacks and pretenders, who, by deception and impudence, force their services upon the public.

It is really strange how little has been written upon this subject. We have voluminous and able works on medical jurisprudence, yet the subject of malpractice is scarcely mentioned; for instance, all that is said in one of the best works on jurisprudence, viz: Taylor's, in reference to surgical practice, is the following sentence: "Actions for malpraxis are instituted, and in spite of good evidence in his favor, the surgeon is sometimes heavily fined for a result that could not be avoided; there is often great injustice in the proceedings, and the mischief can only be remedied by referring the facts to a medical tribunal, which should always be competent to decide whether or not unskillfulness had really been shown in the management of the case."

This, with a note by the editor, has the true ring but is of little practical importance as a guide to either surgeon, attorney, judge or jury.

Prof. Frank H. Hamilton, in his world renowned report on "Deformities after Fractures," refers in an able manner to this important subject.

Dr. J. W. Hamilton, as chairman of committee on surgery, some years ago, made an interesting report to the Ohio State Medical Society. Other reports have referred to the matter, and now and then a case or an article appears in some one of the medical periodicals. But with the exception of the work of the Hon. John P. Elwell, M. D., of Cleveland, Ohio, we know of no systematic work on this subject. Both the professions

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of medicine and law have been groping in the dark on this important connecting link between the two.

We will here acknowledge our indebtedness to Dr. Elwell's valuable work for a large share of what little information we have obtained, for various extracts, and for cases referred to in this report.

In cases of alleged malpractice the general rule is to charge the surgeon with *unskillful treatment and negligence.* The first will be very hard to remedy, for it would perhaps be impossible with any standard of medical education to make all practitioners skillful surgeons; but the second charge can, as a general rule, and ought to invariably be avoided. There is no good reason for negligence and carelessness, and if all those who practice surgery would attend their cases with that care and diligence which their patients have a right to demand, the cases of alleged malpractice, in the opinion of your committee, would not be one-half as numerous as at present, and the prejudice existing in the public mind to a great extent removed; the feeling of the patient towards his surgeon, in case of failure, would be *more lenient*, and it would be less difficult to mete out justice to those that really deserve punishment; in fact it would, to a very great extent, remedy the evil under which our profession is now laboring. As a general rule, the injustice done to any profession is caused directly or indirectly by the profession itself. If all members of *our* profession do their duty to the best of their ability and in a manner that matters of life and health demand, there is no doubt but it would rise far above its present position in the estimation of the people, and be protected to that extent it deserves by the law and the courts, notwithstanding *the parasitic burden it ever has to carry in the shape of charlatanism and quackery.*

The law very justly requires necessary diligence and carefulness but does not require *extraordinary* skill. If it did, very few practitioners of medicine would be at all justifiable in attempting to practice surgery. Even he who when commencing practice has the best knowledge of anatomy and all that is generally learned in college and hospitals of the principles of surgery, finds after a few years practice in a town or country where there is but little surgery, that, for the want of experi-

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ence, he becomes "rusty"—awkward with the knife because he seldom uses it—has not that confidence in himself that a surgeon should have when called upon to treat a difficult case of fracture—because his general knowledge of fractures teaches him the uncertainty of *complete* success, and his own practice and observations have been too limited to form with *certainty* a prognosis in the case. And when in the course of several years practice, perhaps, he is called upon to treat a dislocation, although he may have been thoroughly posted as to the number and kind of dislocations laid down in the books, and all the differences between dislocations and fractures of the necks of the bones, yet he is in doubt as to the real nature of his case. Not for the want of anatomical or surgical knowledge, but for the want of just what cannot be obtained in an ordinary practice—*experience.* Hence we have no great surgeons, because we have no experienced surgeons, outside of large cities, hospitals and armies. Yet, as a general rule, all men who practice medicine in this country practice surgery also, and if they exhibit an ordinary amount of skill, such skill as is usual among ordinary practitioners, it is very justly all the law requires.

As a large proportion of suits for alleged malpractice are in cases of fractures or dislocations, we will refer particularly, first to fractures, and secondly to dislocations. There is probably no part of the practice of surgery where there is so much skill, diligence and carefulness required as in the treatment of fractures. A crooked and shortened limb, rendered so by unskillful or careless treatment, is something which every surgeon is very properly ashamed of, and on the other hand, a perfect cure, on account of the difficulty and skill required to obtain such in many cases, is a matter of pride. Dr. Hamilton, in his large collection of facts in reference to the success in treating fractures, has shown how very imperfectly they are generally cured. Such is the case not only in the private practice of the ordinary surgeon and physician but in the large hospitals of this and the old countries and among the most eminent surgeons. Dr. Pott more than an hundred years ago spoke of the "notorious fact that in England broken thighs and legs were often, *very often*, left deformed, crooked and shortened." And but recently the

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distinguished surgeon of St. Bartholomew's hospital says: "One is at a loss to find an apology for those surgeons to whose want of care and even humanity may be attributed the numerous examples of distorted and contracted members which have cast a reproach on the surgery of Great Britain." Dr. Hamilton shows the following proportion of imperfect cures:

Of the	Humerus	50	per cent.
" "	Radius	66	" "
" "	Ulna	46	" "
" "	Radius and Ulna	35	" "
" "	Femur	90	" "
" "	Tibia	25	" "
" "	Fibula	52	" "
" "	Fibula and Tibia	65	" "

Which makes an average, including all kinds of fractures from the most simple to the most complicated that have not required amputation or proved fatal, of a little over 50 per cent., or in one half of the cases there is more or less deformity. It is to be regretted that a more accurate record has not been kept, and more thorough reports have not been made from all hospitals where fracture have been treated, both civil and military; but we doubt whether if such was the case, the ratio of perfect cases would be increased. Again, the difficulty and sometimes almost impossibility of making a correct diagnosis in cases of fractures about the joints, is the cause of improper treatment, which results in deformities and disabilities which could to a great extent be avoided if there was no doubt about the nature of the injury. Our most experienced surgeons are constantly making mistakes in cases of this kind. Dr. Hamilton very appropriately says: "It is only, after all, by an examination of a great number of cases both before and after death, that we shall ever arrive at a complete solution of these different questions." Again he says: "It has occasionally happened to me to see the surgeon severly blamed for errors of diagnosis in relation to injuries about the shoulder joint, and I would like to impress upon surgeons the necessity of studying the diagnostic signs of these various accidents with great care."

If those of the largest experience and the most thorough anatomical knowledge are so often mistaken in diagnosing

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between fractures about the joints and dislocations, the surgeon of limited experience in private practice certainly should not be blamed and held responsible in damages, in cases of disability arising from wrong diagnosis. Too much care cannot be exercised in cases of this kind. Another matter of importance in this connection is stiffness and partial anchloses of the joints, especially of the wrist and ankle after fractures of the lower end of the radius and tibia, this is probably not produced by inflamation extending to the joint, but by inflamation and effusion into the sheaths of the tendons, sometimes producing adhesions, hence the long continued stiffness, especially of the hand and fingers, and also the fullness on the anterior part of the wrist, which may lead to the opinion that the bones are displaced. Dr. Mott says: "Even when fractures of the radius within two inches of the wrist are well cured, an anterior prominence at the wrist or near it, will sometimes result from swelling of the soft parts, etc." These difficulties are something which cannot be avoided, and the surgeon ought not to be blamed when they occur.

A very unfortunate result which sometimes happens in fractures, is non-union. When it does occur, no difference from what cause, it is popularly attributed to the treatment. Non-union is met with more frequently in the humerus than any of the other bones. It is difficult to give any good reason why such should be the case. It is claimed by some surgeons that it would be far less frequent, if in dressing fractures of this bone, the forearm was kept straight instead of being bent at right angles with the arm. Too much extension may be the cause of non-union, by keeping the ends of the bones apart. This should always be kept in mind when using instruments of great power in making extension. Sometimes, however, non-union will occur under the most appropriate treatment, from causes beyond the surgeon's knowledge or control; nevertheless he may have to defend his treatment in court, and if faulty in the least, it will be claimed as sufficient reason for the non-union and perhaps damages.

Other accidents may happen, such as gangrene, mortification, and sloughing of the soft parts, especially in compound fractures. Here is a very fertile source of complaint against

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the surgeon, who is sure to be blamed for bandaging too tightly, and too often justly censured. Surgeons cannot be too careful in bandaging fractured limbs during the first few days or while there is inflamation and swelling. There can be nothing gained by it, and there is always danger, especially in the leg, of retarding the circulation and producing sloughing. Exten sion and counter extension are the objects to be obtained in the treatment of fractures, and appliances to secure these objects with as little lateral pressure as possible are certainly always preferable.

We will now give the outlines of the following American adjudicated cases which embraces much of interest in suits of this kind.

McCaudless vs. McWha—Pennsylvania Reports—Plaintiff broke his leg and Dr. McCaudless, a physician and surgeon in good standing, treated it. After the leg got well it was shorter than the other and plaintiff brought suit for damages. The fracture was an oblique comminuted one of tibia and fibula, about middle of leg, treated with splints extending from ankle to knee, and bandages which plaintiff loosened on account of pain. Dr. McCaudless was charged with "a want of the exercise of sufficient surgical skill and attention."

Verdict was rendered for plaintiff for $850.

Judge Bredin charged the jury as follows: "That the defendant was bound to bring to his aid the skill necessary for a surgeon to set the leg so as to make it straight and of equal length with the other, when healed; and if he did not he was accountable in damages, just as a stonemason or bricklayer would be in building a wall of poor material and the wall fell down. And if suits were more frequently brought, we, perhaps, would have fewer practitioners of medicine and surgery not possessing the requisite professional skill and knowledge than we now have." To which charge the defendant's counsel of course, took exceptions, and the case went to the supreme court, where the whole case is carefully reviewed. Judge Woodward, in speaking of the above charge, says: "The implied contract of a physician or surgeon is not to cure—to restore a limb to its natural perfection—but to treat the case with diligence and skill." Again, he says: "The law has no

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allowance for quackery. It demands qualification in the profession practiced, not extraordinary skill such as belongs only to few men of rare genius and endowments, but that degree which ordinarily characterizes the profession." Judge Lewis, without dissenting from the opinion of Justice Woodward, reviews and criticises the treatment very severely. Chief Justice Black puts the whole thing in a "nut-shell" as follows: "We all concur in the law of this case. The judge in his charge fell into an error in stating the amount of skill required in the treatment of the case. We reverse for that reason. But when we decide the legal point we are done with it. We are not authority on the questions of surgery. But this is my own opinion for which no other member of the court is responsible." A *venire de novo* granted.

OF DISLOCATIONS.

On account of the permanent disability that may be produced in the mismanagement of dislocations it will not be difficult to understand why they are so frequently the cause of suits of alleged malpractice. There are no injuries unless, it is of the arteries, where delay may cause worse results than in dislocations. A few hours delay may make the diagnosis very difficult, on account of swelling, and a few days, or at farthest weeks, may make reduction an impossibility or if successful may leave the joint in a useless condition. There is, as a general rule, not the long continued care and diligence required in treating dislocations as in treating fractures, yet there is no less anatomical knowledge and surgical skill demanded. The necessity for correct diagnosis and prompt action are apparent to all. Suits for damages probably always grow out of a wrong diagnosis, ineffectual attempts to reduce or neglect in attempting reduction, or, perhaps, sometimes in neglect in treatment after reduction. Without considerating these subjects your committee will give a very brief synopsis of the following case of alleged malpractice in a case of dislocation of the shoulder, tried at the November term, 1866, of the District Court in and for the county of Shawnee, J. H. Murphy, judge *pro tem*, on the bench.

(Here follows a synopsis of the testimony produced at the trial, the charge to the jury, etc., which the author of this report is unwilling to have published, as the case is still *sub judice*, on approval.)

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CRIMINAL MALPRACTICE.

Cases of criminal malpractice are very rarely met with in surgery. Such cases in this country and England have generally been in medicine and obstetrics, although a few cases coming under the head of surgery have been reported; and as there seems to be great difficulty (on account of the peculiar surroundings of the whole practice of medicine and surgery) in doing justice to all parties in this class of cases, a few observations, quotations, etc., may not be devoid of interest. Authority on this subject dates back to the 15th century, beyond which time all is confusion in both common and civil law. One of the oldest and ruling decisions relating to criminal malpractice is given by Sir Mathew Hale, which is as follows: "If a physician gives a person a potion without any intent of doing him any bodily harm, but with intent to cure or prevent disease, but, contrary to the expectation of the physician, *it kills him*, this is no homicide; *and the like of a surgeon*, and I hold their opinion to be erroneous that think if it be no licensed surgeon or physician that occasions the mischance, then it is felony, for that he be not licensed according to the statutes he is subjected to the penalties in the statutes, but God forbid that any mischance of this kind should make any person not licensed guilty of murder or manslaughter."

It will be seen from this decision, which has ever governed decisions in criminal malpractice, that Sir Mathew Hale makes no distinction between the responsibility and liability of educated and licensed physicians and surgeons and the charlatans or quacks, and it is supposed that he referred (in the above decision) to Lord Coke, who says: "If one that is in the mystery of a physician take a man to cure, and give him such physic as within three days he die thereof, without any felonious intent and against his will, it is no homicide, but Britton saith that if one that is not of the mystery of a physician or chirurgeon take upon him the cure of a man, and he dieth of the potion or medicine, this is, saith he, covert felony." Lord Coke, it seems, contents himself with quoting the very old and doubtful authority of Britton without expressing his own opinion. Blackstone follows Hale, and such is the common law to this day, although there has been some vaccilation in

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the decision of the courts, and in some of the states of this country statute laws have been enacted to protect the people against some of the grosest forms of charlatanism.

The following extracts from a leading English case tried before Baron Hulloch, in 1829, is a very fair sample of how such cases are disposed of: The indictment charged Van Butchell with causing death by "the thrusting of a round piece of ivory into and up the fundament, and against the rectum of the deceased, William Archer, thereby making one perforation, laceration and wound of the length, etc., in and through the said rectum of the said Archer." In this case the patient died seven days after the operation. There seemed to be no dispute about the cause of his death. The defendant was prepared to show that he had a regular medical education. Baron Hulloch ruled that it was not material to the case. The case went to the jury, and Hulloch in summing up said: "This is an indictment for manslaughter, and I am really afraid to let the case go, lest an idea should be entertained that a man's practice may be questioned whenever an operation fails. In my opinion it makes no difference whether the party is a regular or an irregular surgeon. Indeed, in remote parts of the country many persons would be left to die if irregular surgeons were not allowed to practice. It is quite clear you may recover damages from a medical man for want of skill, but as Sir Mathew Hale says: 'God forbid that any mischances of this kind should make a person guilty of murder or manslughter.'" And his proposition amounts to this: "That if a person *bona fide* and honestly exercises his best skill to cure a patient, performs an operation which causes the patient's death, he is not guilty of manslaughter."

Without more extended remarks your committee respectfully submit the preceeding report.

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ON THE APPLICATION OF WATER AND ITS EFFECTS AS A LOCAL AGENT.

BY J. L. PRENTISS, M. D.

It may appear to some that this is a subject not unimportant in its nature but one which has been exhausted in all its details that pertain to surgery.

From the days of Hippocrates to the present time, there has been no one remedy so generally resorted to in the dressing of wound as the application of water.

Wise men have theorized, and practical men have experimented, while centuries have glided by, and still I cannot but think that only a few of the profession have realized the efficacy of this bountiful and potent medium of removing or supplying heat and soothing many a pain.

It is not my purpose to enter into a minute description of the different ways of applying water, and the peculiar results of each; neither do I intend to discuss the theory and treatment of inflamation, or refer particularly to conditions indicating its use, but will confine myself to its application and only enumerate in brief, the desired objects to be obtained: the disadvantages and actual objections to the modes in common use; and present for your consideration the plan which I have adopted and some of the results obtained from it.

It is not that there is any particular efficacy in water, that we apply cold water dressing almost universally to wounds and injuries producing inflamation, but simply on account of the cold or heat and moisture. These three, therefore, are the prime objects which we wish to secure: cold or heat and moisture. Now that we have mentioned the qualities which we wish to obtain, let us consider the common modes of obtaining them. Most universal is its application by means of wetted cloths. This simple resource in its immediate condition answers every indication, but there are serious objections. First, as to temperature; the exact degree required may be applied as cold, for instance, at 30 degrees, more or less, to a part heated by the effects of severe local inflamation, but the moment of its

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application the temperature begins to change, and unless the application be renewed within a short time, that change may be noted by a rise of over 60 degrees. Still this is the most common dressing for parts inflamed, and what, I ask, must our better judgment tell us to be the result of this change? Reaction, of course. Where then is the benefit? and may we not ask with propriety, has not the reaction and consequent congestion aggravated more than the cold relieved? I grant however, that these objections may in a measure be removed by the frequent wetting of the cloths, thereby keeping the temperature nearly equal. The second objection however is not so easy to remedy, viz: The wetting of the clothes and bed. This is often a source of great discomfort, besides the danger incurred from the risk of taking cold.

I have no doubt that many maladies which have ended in death might have been traced to this source. In cases of cerebral inflammation, for instance, I have often seen the pillows and a good portion of the clothing saturated in the attempt to cool the head by this means.

Another mode of applying water, and one very efficient, is that by irrigation, but this too presents one of the same fatal objections just mentioned (wetting the clothes) and I am sure that the experience of each member of this society has often appealed to his judgment as to the dangers of this objection.

Ice in a bladder is a favorite mode with some where a very low temperature is required, but aside from its being bungling and uncomfortable on account of its weight, the inconvenience of having to remove and refill it offers serious objection.

I have now noted the usual applications of water, and although there are some modifications which might be mentioned, I will not dwell longer on these familiar modes, but present an appliance, which I am satisfied, is not at least generally known to the profession. While in New York last winter, I took particular pains to inquire of several of the most prominent surgeons and found them entirely unacquainted with it, and the expression of approval which they gave it, together with the confidence that its successful use has given me, has led to the writing of this article.

A light dressing of any desired even temperature, with a

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sufficient amount of moisture, but not enough to wet the clothing, *are its elements.* What more can we desire in the treatment of local inflammation by water dressings? The apparatus is simple and is as follows:

A rubber bag of the required dimensions, made with the two surfaces attached at intervals so that when filled with water the thickness will not exceed one-fourth of an inch. To one end of this quilted bag is attached a rubber tube as long as necessary, connected with a pail or other reservoir of water. To the other end of the bag is attached another tube with a stop-cock to regulate the flow of the stream, and leading to a receptacle for the waste water.

By this means you will perceive that a thin sheet of water may be placed directly over the part without coming in contact with it, and also that the temperature of the water may be kept even by a continual change through the supply and discharge tubes. As to the moisture, I have usually applied a wetted cloth over the injured or diseased part, and if the application be a cold one, a sufficient amount of the insensible perspiration or vapor of the air will condense upon the appliance to keep the part moist.

I have described this rubber bag with tubes attached because it was the first that I made and used, but I have since adopted an apparatus more easy of construction, and I think equally efficient. It consists of a light rubber tube about seven or eight feet in length (longer or shorter as necessary), coiled in the form of a lamp mat to the desired dimensions, and retained in shape by means of light cords extending from the center to the circumference and tied around each coil, one end of the tube (from the center) being left of sufficient length to introduce into a pail of water, and the other from the periphery with a stop-cock attached extending to the waste pail.

By means of a current of water through this coil, any desired temperature may be produced and maintained. The smallest sized tubing is the best, and may be obtained at the trifling expense of 15 cents per foot.

Before reporting a few cases in which I have used this appliance with success, I will state that I do not claim this as

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any invention, although in one sense it was, as I contrived and had used it for several months before I knew that the principle had been before applied.

Dr. Arnott, of London, published an article which was reviewed in the eleventh number of Braithwaite's Retrospect (before the value of gutta-percha was known) describing and recommending the same principle applied by means of a bladder with leaden tubes attached; and to protect myself from censure for recommending an improvement in the same principle, I would also state that upon inquiry at the patent office, I have learned that a similar invention was patented years ago, but has never been brought before the public. As my article is now of greater length than I had intended, I wil only mention two or three cases briefly.

Mr. Enright (a mason by trade) aged about forty years, fell from the top of the State University, a distance of over forty feet, and aside from other severe bruises and cuts, received a wound on the right hip, constituting a compound fracture of the ilium. The external wound being about two inches in length and the fracture extending from about one-half inch below the anterior superior spinous process, backward about three inches and upward to the chest. After dressing I simply applied this apparatus, and with it kept the wound entirely within the bounds of adhesive inflammation. After three days I removed it; the external wound had united, the smelling subsided, and without further apparent inflammation the fracture united, and at the end of two weeks the patient had so far recovered as to walk up town.

A servant girl, Miss Harris, fell with a tub of hot water and scalded herself about the shoulders, arms, chest and epigastrium, and as I found that the burn in the latter region was giving far the most pain, as an immediate relief I resorted to this remedy. The result was most satisfactory, and the patient recovered after a short time, having suffered comparatively little after the application of the cold.

In cases of sprains I have used it with surprising success, and feel sure that it has been the means of not only relieving, but curing such cases so that they were able to attend to business in a few days, and I give it as my opinion that weeks

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would have been required to produce the same results by the usual treatment.

I have had several other cases where this mode of water dressing has proven very efficient, but for fear of making the article too lengthy, will not report them.

REPORT OF THE COMMITTEE ON OBSTETRICS.

BY C. A. LOGAN, M. D.

The subject of this report will be discursively considered under the heads of *Gestation* and *Parturition*.

GESTATION.

The disorders apt to occur during the pregnant state are multifarious. When the extensive sympathies of the uterine system are remembered, it is not to be wondered at, that a process working such extraordinary changes in that system should be accompanied by the most vivid responses from organs so closely related to it. Of the less important of these disorders, as lesions of the digestive apparatus, manifesting themselves in anorexia, morbid appetite, vomiting, constipation and its reverse, diarrhœa, &c., &c., it is not now proposed to speak, but to confine this portion of the report to the consideration of two accidents, the mere mention of which, in connection with parturition, is accompanied by a thrill of anxiety to the physician and of terror to the friends. Convulsions and uterine hemorrhage are here alluded to.

In the very large majority of pregnant women, the functions of the nervous system are in a very exalted state. This is apparent from the innumerable manifestations of disordered sensibility and perverted motor action, which occur with so much constancy, as to establish a quite constant rule, broken only by exceptions, almost representing a true test-type of physiological development. While the fact here stated is very

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generally admitted to be true, its exact explanation is not agreed upon.

Until recent years it was almost universally supposed that the pregnant state was, emphatically, one of general plethora; and the disorders spoken of were considered legitimately chargeable to the increased blood development in the system. From this stand point of morbid action, the great remedial idea expressed itself in a counter-move by depletion. There are those of us still young in the profession, who remember with what pertinacity the blood-letting therapeutics was clung to in the myriad forms of nervous corruscation in the pregnant woman. Those of us who bear such remembrance, must also associate with it the results of the practice as manifested in the frequently worsted state of the patient.

Among the many aphorisms of Hippocrates which are destined to survive the investigations of all the centuries, there is one more incontrovertible nor more expressive of a great capital fact in physiology, and upon which hang more important therapeutic data, than that which is enunciated in the words, *sanguis moderator nervorum.* The blood is the great pabulum of the nervous system, and the higher the *physiological* development of the former, the more perfect the equilibrium of the functions of the latter.

This is a statement which cannot be successfully controverted, and is in admirable harmony with the facts developed by the industry of those great French investigators, MM. Andral and Gavarret, who show conclusively that in the pregnant state, there is as a rule, a large reduction of the red corpuscles of the blood below the physiological standard, and that the puerperal condition instead of being one of plethora (using the word in its usual sense) is in fact and essense its converse, often approaching nearer to that of anemia with its developments more simulative of chlorosis, than to the diseases generated by an exuberance of the globular elements of the blood.

In stating his belief in this view of the parturient constitution, the reporter is aware of the many arguments that are to be adduced as proofs of the plethoric origin of the various morbid manifestations occurring during pregnancy; and while

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he admits that there are undoubtedly women whose type of health approaches so near its normal character that they are enabled not only to compensate for the increased demand for blood upon them by an increased activity in the blood-making functions, but that at times they so far exceed the demand as to constitute a condition of true plethora, yet he cannot but regard these as exceptional cases, and that in the very large majority of pregnant women as we now find them, the appearances of *active* plethora are fallacious, the blood being impoverished in its globular constituent, and that consequently the various congestions of the parturient state are purely passive or mechanical in their nature.

If then it be a fact, that the globular element of the blood is, during the pregnant condition, reduced below the physiological mean, it is no difficult matter to understand why the functions of the nervous system should be marked by such astonishing aberrations from its normal rhythm. Furnished with a blood deficient in the very principle upon the physiological ratio of which depends the perfect harmony of its operations, there exists a general nervous erethism, giving voice to the most discordant sounds in response to irritations which in the normal state would probably be unrecognized.

In corroboration of the correctness of the principles here stated, your reporter would beg permission to offer the following quotation, translated from Trousseau's celebrated work on Clinical Medicine, article "*Convulsions de l' Enfance*," containing as it does, declarations having an important bearing upon the subject under consideration :

"Independent of this predisposition transmitted from parents to their children, there is a series of causes which singularly predispose to convulsions; *these are all those which tend to enfeeble the economy*. These accidents are never more frequent than in children whose alimentation is insufficient, or in those who have suffered from relatively large losses of blood, whether these losses have been spontaneous or produced artificially by a bleeding or an application of leeches. Abundant and prolonged diarrhœas act in the same manner. There is nothing to surprise us in this, when we reflect upon the great physiological law that the more im-

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poverished and languid the nutritive system and the vegetative phenomena the more are the nervous phenomena uncertain (*mobiles*), exalted and irregular."*

Keeping in view the nervous erethism above referred to, we are in condition to approach the consideration of one of the most fatal accidents of the puerperal state—convulsions.

And first let us remark that from the considerations herein set forth, it is believed that we may fairly assume in the pregnant woman the existence of a *convulsive constitution*, which varies in force and intensity in each individual case in proportion as it either approaches to, or recedes from, the healthy standard of life. Now it is in cases where, from the causes touched upon, this constitution is strongly exhibited, that the class of convulsions termed eccentric or reflex are of so frequent occurrence. The reporter is aware that some high authorities maintain that this form of convulsions is not frequent, but on the contrary, but rarely seen. The following extract is from a published lecture upon the subject by Prof. T. Gaillard Thomas, of New York :

"I have never met in my own practice with puerperal convulsions, where uræmia was not the undoubted cause. You may then, I believe with safety, fix in your minds the following as an axiom; as a rule puerperal convulsions are due to uræmia; as a rare exception to this rule centric or eccentric irritations may be the causes of them."

The reporter cannot subscribe to the correctness of the sweeping assertion contained in the latter clause of the quotation. His own experience of course has been limited as compared with the authority quoted, but a reference to his notes reveals the fact that the *majority* of the cases which have fallen under his observation have presented no traces of albumen, or other evidences of toxæmia, but were strictly ascribed to irritations acting upon the excited reflex sensibilities.

It is but a few weeks since that the writer saw in consultation, a primiparous woman at the eighth month, who, having been subject to loss of appetite and other evidences of im-

*Clinique Medicale de L'Hotel Dieu de Paris, par A. Trousseau. Tome II. P. 116.

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paired health, ate freely the evening before her attack, of fried ham and eggs. In the night being seized with vomiting and violent pain in the bowels, a physician was sent for. At eleven o'clock the following day she was seized with a convulsion. Every effort was unsuccessfully made to evacuate the bowels, and the convulsions continuing to recur in spite of everything that could be done for her relief, she died at six o'clock the following morning.

In this case there was no albuminous urine, nor could there have been any uræmia in the acceptation of the word. A partial refutation to the "rule" in the opinion of the reporter occurs in the fact that of the whole number who are attacked with eclampsia puerperalis, it is generally conceded that from three-fourths to seven-eighths are primiparous women. If the operative cause were uræmia produced by a *compression* of the renal vessels by the distended uterus, then it should exist with almost, if not quite as great frequency in the multiparous woman as in the primiparous, for it is not a satisfactory explanation of the circumstance to say that there is a less degree of compression in the former than in the latter, because of the greater distensibility of the abdominal walls. Too many instances, (and after all, instances representing facts, are the true data to found conclusions upon) disprove the assertion. A case occurred to the writer some years since in which the woman, a primipara, had albuminous urine and most violent convulsions at the eighth month. Labor set in and the child was still-born, weighing only 7½ pounds. This patient conceived again, and in due time was delivered without accident of twins, whose joint weight was 15½ pounds. In the latter pregnancy she had no albuminous urine and no convulsions, but could there have been less compression on the renal organs and vessels in the last case than in the first? The spinal column, in all cases, is the *point d'appui* against which all tumors in the abdomen must fix themselves directly or indirectly, before the distensible walls in front can be made to yield to any extent. This is certainly a demonstrable proposition. If then, compression of the renal vessels in the case related, produced in the first pregnancy uræmic poisoning, and per consequence, convulsions, why should not the manifestly

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greater compression in the second pregnancy have produced the same results?

Although your reporter fully concurs in the fact of a great many cases of convulsions being *associated* with an albuminous condition of the urine, and an anasarcous state of the body, yet he cannot help doubting that the true explanation of the problem has been arrived at in ascribing to a mechanical pressure, by the uterus, upon the renal apparatus the production of the exciting cause of convulsions, whether it be a specific poison or what not. Too many circumstances negative the supposition. First, other bodies than the uterus, as the enlarged spleen and liver, and abdominal tumors, whether solid or fluid, may produce greater compression of one or both kidneys and their vessels, and still no albuminuria result; and per contra, albuminuria attains its maximum of intensity in diseases not necessarily associated with pregnancy, and yet convulsions are not an invariable circumstance attending their progress, if indeed, they be a frequent one.

However widely we may differ as to the rationale of the production of puerperal eclampsia, one thing is certainly evident, and that is that they depend in some inscrutable way upon the puerperal state *per se*, or in other words that during pregnancy there exists a convulsive constitution variously modified by favoring or unfavoring circumstances.

A few words must suffice in relation to the treatment of these accidents. Should the convulsive disposition manifest itself during the latter months of pregnancy, every effort must be made to avert the development of the attack. Keeping in view the acknowledged relationship between an albuminous condition of the urine and the convulsive seizure, it is imperative that we should test the urine for that principle. A strong suspicion of its existence will be raised should there be an anasarcous puffing of the body. The digestive and secretory functions must be carefully regulated in all cases presenting unfavorable symptoms, and in those attended with albumen, the kidneys and skin must be kept particularly active. The general regimen, physical and moral, should be highly invigorating in the first sense, and tranquilizing in the last; and *iron* in some of its forms should be administered for a length

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of time. It will often be of the greatest service to associate with this agent, the quinine of Peruvian bark.

Except in *truly* plethoric conditions, general sanguineous depletion will seldom be requisite; local congestions and their effects, as before stated, are very generally either passive or mechanical in their nature, and are to be met with remedies appropriate to such conditions.

When labor is about to occur, anæsthetics to blunt the susceptibilities will, probably, be necessary, and of these chloroform prudentially administered will be the best. Opposed as a principle to the use of anæsthetics in natural labor, your reporter unhesitatingly declares them necessary in all forms of puerperal convulsions not purely centric, (confining the word to diseases of the cerebro-spinal centers themselves) in their origin, and before those forms become so by effusion, &c. The writer has seen cases of convulsions brought to a favorable issue by the use of chloroform; and he would impress upon the profession, never to omit its use in cases where it is not contra-indicated.

Should the convulsions occur before the completion of term, as they often do during the eighth month, whether due to a reflex irritation emanating from the uterus itself, or otherwise, it will become necessary, after failure to subdue them with anæsthetics and conjoined means, to empty the uterus by exciting premature labor. By this means the lives of both mother and child may often be preserved.

In the short space allotted to a report like this, it is impossible to approach a subject so replete with detail, without doing it injustice. The reporter promises himself the pleasure, at no distant day, of presenting the subject *in extenso* for your consideration, in essay form.

PLACENTA PRÆVIA.

All physicians appreciate the depth of meaning attached to this term. Thanks, however, to the onward march of the art, it has been stripped of fully one-half its terrors; and the cases which now necessarily die from this accident are very few compared to the mortality from this cause fifty years, or even less, ago; the number probably being nearly represented by the

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sum of those who have unfortunately delayed procuring intelligent assistance until too late to save them.

The placenta, as is well known, in these unavoidable hemorrhages is implanted either centrically over the os uteri, or only covers a portion of the opening by a segment of its circle.

The first manifestations of trouble usually begin about the end of the eighth month. These manifestations explain themselves by gushes of blood, more or less profuse. It is at this time, when the physician has ascertained the exact nature of the difficulty, that a very grave question presents itself for solution, this being none other than the consideration of the propriety of terminating gestation by the induction of premature labor. There are many solid arguments in favor of such a course in cases of great seriousness. *Imprimis*, it is a strongly conservative measure, saving the woman, to say the least of it, from the severe drain of frequent and copious hemorrhages; and *secundo*, it can be accomplished with much better results to the mother, and quite as many assurances for the life of the child, as though the case were allowed to progress to the completion of the term.

The writer knows of no better way of determining this question than by a general consideration of all the circumstances in each case. Prominent among these, of course, will be the extent of the cervical implantation. Next to this in importance will be the ability of the woman to sustain a sanguineous loss. Many women representing the extreme of blood deprivation, would sink under a hemorrhage that would not be seriously felt by one more fortunately constituted. Your reporter would strongly recommend the procedure in cases promising much danger.

Unfortunately, we sometimes see cases whohave deferred seeking advice until labor is absolutely upon them. In such emergencies the man of science rises to the greatest height above the mere routinest or the ignorant pretender. An arena is here presented in which the charlatan dare not engage in an encounter with the true physician.

The indication in these trying cases is to arrest the hemorrhage until either the progress of the labor removes further

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danger, or the uterus can be emptied of its contents. The measures to meet this indication are therefore two-fold—those adapted to the first stage of labor, and those to the second.

The tampon was the earliest resort in these cases during the dilatation of the os, and is often used at the present day with the best results. The reporter would present for your inspection, the instruments called Barnes' Uterine Dilators; they act as a tampon by compressing the bleeding vessels, and greatly expediate the dilation of the os. No accoucher should be without them.

The great measure, however, the measure *par excellence*, consists in the partial or complete detachment of the placenta. The partial detachment may be effected in one of two ways: either by the separation of the placenta from its attachments around the os, (Barnes' Method) or by separating its entire segment from one or the other of the sides (Cohen's). The latter is the proper procedure in cases where the implantation is complete. The placenta is to be detached entirely from one side, and the Barnes dilator (or in its absence the ordinary colpeurynter) is introduced. The bleeding is thus arrested and the os dilates. When the first stage is completed, the membranes are to be ruptured and the presenting part allowed to descend to take the place of the dilator. If the pains be active and the fœtal relations normal, this will occur, and the patient will come happily through terrible ordeal. If the pains be inefficient, however, they must be stimulated by ergot, or uterine catheterization. Should the pains, notwithstanding these measures, not be sufficient to propel the child with sufficient force to check the hemorrhage, version, or the use of the forceps will be indicated. These need not be dwelt upon here.

But there is another class of cases to which we are sometimes called; those which, having been mismanaged in the earlier stages, or from sudden and overwhelming discharges are upon the brink of exhaustion from the loss of blood. The os is dilated, the pains have ceased, but the bleeding continues. It is in such cases that Simpson's method, as it is called, presents itself as a last hope. Version cannot at once be performed, for fear that the patient will die from the shock of the operation. This unfortunate result occurred in a case

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managed by your reporter, upon his advent into practice. Simpson's method consists in the detachment of the whole placenta, upon the accomplishment of which the bleeding generally ceases, and the opportunity is gained to prepare the woman for the saving operation by nutrients, stimulants, opiates and exhausted nature's sweet restorer—sleep.

PARTURITION.

It has been very seriously questioned whether when Denman penned the great truth, "Meddlesome midwifery is always bad," he was not giving utterance to a sentiment through the perversion of which more lives were to be lost than were to be saved through the expression of a conservative law, the absolute valve of which cannot be doubted. So much ignorance is covered by, and so much criminal negligence practiced under the sanction of this saying, that considered purely in a utilitarian view, it has been asserted that it had better have remained unsaid. The refutation of such a fallacy, however, is easily found in the reflection that the abuse of a precept is no argument against its soundness, nor its safety as a method of action.

There can be no doubt, however, that an incalculable amount of unnecessary suffering, to speak of nothing worse, is entailed upon the parturient woman through want of an intelligent interference when the processes of nature are faulty or perverted. Singularly enough, too, in a large number of cases, women are permitted to struggle unaided through a tedious labor, if made so by some easily obviated difficulty, simply because it is a rule that "Meddlesome midwifery is bad;" while if a really formidable object present itself there is no hesitation in deciding upon prompt measures for relief. In a brief report like this but little latitude can be permitted for specific details, but as a principle the reporter would enter his protest against the indifference which allows a woman to exhaust herself in the parturient effort, while a skillful assistance would abolish unnecessary suffering, preserve her strength, and increase her chances for a speedy and safe convalescence.

An enumeration of all the causes which may be operative to prevent the due consummation of natural labor, would be

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out of place here; the reporter can only touch upon a few of them.

Dr. J. Hall Davis, in a work recently published by him on "Parturition and its Difficulties," makes a division of difficult parturition in two kinds, *powerless* and *obstructed* labor. By the first of these terms he means a "defective power in the agents of labor," and by the second, "inordinate resistance to those agents." The division is at once simple and comprehensive, but it must not be forgotten that the latter may, by being unduly prolonged, give rise to the former.

Frequent among the causes which produce an inordinate resistance to the agents of labor, your reporter has found failure to accomplish flexion of the head at the superior strait. During the past year four cases of this kind have come under his observation. The writer entertains the opinion enunciated by Prof. Bedford and others, that the fœtal-head presents naturally at the superior strait by its occipito-frontal diameter, and that it is only *after* labor has commenced that the chin is sufficiently flexed upon the breast to bring the cervico-bregmatic into apposition with the oblique diameter of the superior strait. Your reporter has seen a number of cases of labor most unduly prolonged by the circumstance mentioned, and has as often put the case in the way of a speedy termination by the simple manœuvre of flexing the fœtal chin upon the chest. This movement may at times be accomplished by the fingers alone, but often the vectis is requisite to bring it about.

The act of flexion plays a most important part in the transit of the head through the pelvis; and this as well in the occipito-posterior, as in the occipito-anterior positions. In the former positions, as is well known, the occiput generally rotates anteriorly to the pubes, the third and forth becoming first and second positions of the vertex. This rotation occurs, according to the best authorities, not at the brim of the pelvis, but within its cavity. Should there not be a sufficient degree of flexion the head will not only not rotate in the occipito-posterior positions but it will be arrested in its descent, and if the proper remedy be not applied the most serious consequences may ensue. The writer is cognizant of a case of

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arrested labor from this cause, wherein the perforator was resorted to in consequence of and improper understanding of the true method to be pursued in such cases.

It is astonishing how quickly, at times, a labor that has endured for hours beyond a reasonable time, may be terminated by a strong flexion of the chin upon the breast through the instrumentality of the lever. A house of sorrow and apprehension may be transformed in a few moments to one of joy and gratitude.

Another mechanical impediment which may be as quickly obviated in almost all cases, is found in those occipito-anterior positions, when the head having descended properly into the pevlis, rotation of the face into the hollow of the sacrum fails to occur. The writer once had the horror of being called to see a woman who had died from the development of powerless labor, in whose case the arrest of the head was only due to a failure to rotate after reaching the pelvic floor. These are most extreme cases, but they are adduced simply for the purpose of illustrating the importance of a correct knowledge of the natural processes, as well as to impress the value of the knowledge as to when the "meddlesome" ceases, and the conservative comes in.

Upon the subject of instrumental delivery, your reporter would express the opinion that the *forceps* as an adjuvant in difficult labors, is but too little used in the generality of cases. Reprobating the indiscriminate and reckless employment of instruments; believing truly that meddlesome midwifery, properly speaking, *is* bad, yet he cannot but believe that the prompt and intelligent use of this instrument in proper cases would greatly curtail the aggregate suffering of parturient humanity.

The forceps may be of service both when there is "defective power in the agents of labor," and when there is "inordinate resistance to those agents." To enumerate the various cases in which a resort to the early use of the forceps would be productive of the greatest good, would extend the limits of this paper to undue length; your reporter can only say that to the extent of its timely employment, he believes with Dr. Robt. Lee, of London, that it is the "*child's* instrument," though he

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further believes that as a conservator of the maternal powers, and as a preservative of the maternal structures, it is the *mother's* instrument as well, in all cases in which the child is not dead; and though the perforator and crotchet may in strictness be the "mother's instruments" when the child *is* dead, yet even in such cases the forceps may contest the claim of availability with the crotchet upon the ground of its compressive as well as tractive powers.

With reluctance this report, already too lengthy, and yet too general and imperfect, is brought to a close. It was hoped that an opportunity would be presented to offer a few thoughts upon the post-partum diseases of women, with their appropriate management. Reserving these and other topics for a future paper, the foregoing observations are respectfully submitted for your consideration.

REPORT OF THE COMMITTEE ON CLIMATOLOGY.

BY T. SINKS, M. D.

One of the chief peculiarities of the human organism, both physically and mentally, is its impressibility. While the statement of Boudin that, "man is the mere expression of the soil on which he lives," is, perhaps, too sweeping, the relationship is so intimate that the soil, climate, and physical aspects of a country being given, the character, pursuits and general mental qualities of its inhabitants can be pretty accurately determined.

The proverbial irregularity, uncertainty and capriciousness of the winds, the rains and the temperature for individual months in any locality, would seem to indicate the utter impossibility of reducing them to any system; yet, with all this confusion, there is a regularity, fixed by certain metes and bounds when the longer periods are considered, and one is astonished at the beautiful order and harmony manifested in the almost precise exactitude of the averages for recurring

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cycles of the years. "If," says Theophilus Thompson, "recurring cycles of disease depend either on meterological changes, or on disturbed conditions of life in the lower creation, however capricous, involved, and irregular such changes may appear, yet they are doubtless the result of principles as fixed as those which have been under the explanation of known physical laws. It is only by tracing the action of each distinct cause that we can hope to deduce the ultimate effects of the combined operation of many causes. It is probable that after protracted chains of combinations are completed, the same series of events is repeated through boundless ages; and by perseverance in exact observation, we must not despair of being able hereafter to detect certain coincidences of aspect which mark the approaching recurrence of some small portions of the general series." The growing importance of the subject appeals to the medical profession of our young State, to prosecute exact observations in numerous localities in order that a collection of facts may be accumulated which will be of value to those who may follow, even though they may not be of much practical advantage to us. While the meterological observations already made in our State do not possess the minuteness of detail and extended character desirable for the accurate determination of their hygienic and pathogenic influences, nevertheless we are in the possession of a sufficient fund of phenomena to enable us to determine, with a tolerable degree of accuracy, the more general characteristics of the country of our adoption.

The chorographic features of the State exhibit a great degree of uniformity, and although each locality has its peculiarities, they differ so slightly that an enumeration of them, even if possible, would hardly be desirable. The State extends through three degrees of latitude and eight degrees of longitude. It occupies almost the exact geographical centre of the United States. The surface is that of gently undulating prairie, interspersed with numerous streams, the general course of the chief of which is from west to east. The elevation of the eastern border is from 800 to 1,000 feet above the level of the ocean and gradually ascends towards the west at the rate of 2½ feet per mile. Northwest, west, and southwest

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the plains extend up to the base of the Rocky Mountain range. Although the margins of the streams are skirted by timber, it is not in sufficient quantities to act as barriers to the passage of winds, or in any considerable degree to check radiation and evaporation.

In reference to temperature, the climate of Kansas very closely resembles that of the states lying east of it within the same parallels of latitude, with the exceptions of the transitions, the character of which will be mentioned hereafter. The average temperature of the spring months is 54 degrees; for the summer, 76 degrees; for the autumn, 55 degrees; and for the winter, 30 degrees. The extremes are 108 and minus 30, giving a range of 138 degrees for the year. These extremes, however, seldom occur during the same year, the average being a range of 103 degrees.

From November to March inclusive, the transitions in temperature are quite frequent, sudden and extensive in range, the variation occasionally being 60 degrees in twelve hours. This feature in our climate, while not peculiar, is exhibited more frequently and in greater force than is observed in any of the states east of the Mississippi river. The hygrometric condition of the atmosphere is equally important with that of the temperature, but unfortunately we are not in possession of as much knowledge upon this subject as is desirable. The amount of moisture precipitated in the form of rain and snow has been extensively observed; but while it is important in various respects, it is not so directly concerned in a pathogenic sense as the relative humidity of the atmosphere.

Prof. Tyndal, in his researches into the phenomena of heat, has developed the important fact that vapor of water is opaque to the rays of heat of low intensity, such, for instance, as is radiated from the earth, while it offers but little obstruction to the more intense rays from the sun. He calculates that of the heat radiated from the earth, one-tenth is intercepted by the aqueous vapor within ten feet of its surface.

It has long been known that clouds prevent the rapid radiation of heat from the earth's surface and the consequent formation of frost at night, but it remained for the genius of a Tyndal to demonstrate the potent influence of invisible vapor

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upon the climate of the globe. "The removal," says he, "for a single summer night, of the aqueous vapor from the atmospher which covers England, would be attended by the destruction of every plant which a freezing temperature could kill. In Sahara where the 'soil is fire and the wind is flame,' the refrigeration at night is often painful to bear. In short, it may safely be predicted, that wherever the air is dry, the daily range of the thermometer will be great. This, however, is quite different from saying that when the air is clear the thermometric range will be great. Great clearness to light is perfectly compatible with great opacity to heat; the atmosphere may be charged with aqueous vapor while a deep blue sky is overhead, and, on such occasions, the terrestrial radiation would, notwithstanding the clearness, be intercepted."

We all have experienced the very depressing influence of what is called a sultry day, when the air is still, although there may not be a cloud in the heavens, nor does the thermometer indicate a very high degree of temperature; as well as how quickly animation and vivacity of spirits are restored when a friendly breeze has wafted these dense vapors from our presence. The average amount of moisture precipitated in the shape of rain and snow, for the year, in eastern Kansas is about 32 inches; two-thirds of which falls during the spring and summer months, and the other third during the autumn and winter ones; nearly one-half during the summer, and only about one-eight during the winter. As before remarked the observations upon the humidity of the atmosphere have not been as extensive as is desirable. The following results are the averages of a series of observations for four years, at Leavenworth, extending from 1860 to 1863 inclusive: Mean Temperature, 54 17; Mean Dew Point, 47.26; Relative Humidity, 77.27. This is very considerably below the average relative humidity of the atmosphere in the central and eastern states. The reasons for this condition of the atmosphere are to be found: First, in the contiguity of the plains. Our southwest winds, which are the chief carriers of moisture for this region, in their passage over an extensive district of arid country are robbed of a considerable portion of their vapor of water; our west, north west and north winds are necessarily

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quite dry for the reason that they originate in a dry region. Second, In the absence of any considerable body of water within the state from which evaporation could take place. Third, In the almost constant movement of the winds, and Fourth, In the porosity and depth of the soil which permits the rapid percolation of moisture through it.

The foregoing is a general outline of the facts thus far accumulated in reference to the climate of our state. While they possess much that is of interest in a scientific point of view, it is questionable whether they are sufficient to be of great value in a hygienic sense, or in the elucidation of the etiology of disease, which is the great aim and end of our investigations. They possess an approximative value however, and are the necessary groundwork for the erection of a more perfect structure, when the requisite fund of facts from each locality in the state shall have been collected to make it complete. Inadequate. however, as the material is, a few reflections and deductions may not be inappropriate.

In a chorographic and climatal sense the State of Kansas may be said to be "*in medias res.*" It partakes of the nature of all the surrounding climates, but cannot be said to resemble any one in particular. Strictly speaking it is neither continental nor insular. Although its extreme western border is elevated 2500 feet above the level of the ocean, there is not a mountain within its borders.

The following propositions are now generally accepted as true, viz: Heat and moisture are the essential atmospheric conditions under which the deadly malarious effluvia exert their baneful influence. Cold and moisture are the essential atmospheric conditions under which consumption commits its deadly ravages. A high temperature with a high dew point is the prolific source of pestilence. None of these conditions obtain in Kansas as a rule; they do however, occasionally as exceptions. If the foregoing statement of the character of the climate be true we should expect a corresponding pathogenic condition.

In the absence of any mortuary statistics individual observation and experience will have to be relied upon. Malarial fever in all its varieties finds an expression here, but it lacks

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the intensity with which it is characterized in the more central portions of the Mississippi Valley. Pernicious fever is of quite unfrequent occurrence, and billious remittent though more common is but seldom fatal. A similar condition of things exists in reference to the diseases of the respiratory organs, which seems somewhat surprising to those who merely take into account the extreme and sudden transitions of temperature so common during the colder months.

Thus far in the history of the State no wide spread epidemic of any contagious or infectious disorder has obtained, although sporadic cases of them all have occurred from time to time. The year just past was a remarkable one in a climatal sense. The highest point reached by the thermometer during the summer was 96° and that even only a few times. The relative humidity of the atmosphere was below the average. The month of September during which the rapid decay of vegetation usually ushers in our malarious fevers in their most intense form, was unusually cold. In addition, swarms of locusts devoured the vegetation before it had time to decay. In fact throughout the year, organic nature and the elements seem to have combined to starve our honored fraternity, while the people rejoiced in a plenitude of health with but little sympathy for the poor doctor.

DIPHTHERIA.

BY J. W. BROCK, M. D.

No diseases of late years have awakened more attention, both among the profession and the public generally, than those which have been classed, more or less correctly, under the term diphtheretic; nor is this to be wondered at when we consider the distressing nature of the symptoms, and the terrible fatality with which the epidemics of malignant sore throat have so generally been attended.

This is not a new disease. There is reason to believe that we can trace back the history of this affection to a period al-

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most cotemporary with Homer. Whether such be the case or not, certain it is that many centuries after, we find distinct descriptions of a form of malignant sore throat in the writings of Arætaus, under the name of Egyptian or Syrian Ulcer. It was characterized by the appearance of ulceration in the throat, by fetid breath, and sometimes by great dyspnœa.

The various epidemics of diphtheria have presented themselves under two different forms—the mild and the severe. The mild form is usually preceded by more or less fever, by some loss of appetite, a slight difficulty in deglutition, with, perhaps, some discomfort about the fauces. The tongue presents a thick, whitish coat, on examination, at the very outset of the disease, the vellum, palate, and pharynx are of a bright red color, the tonsils are slightly swollen, and are of the same bright red hue. In a short time, generally from twelve to thirty-six hours after the attack, upon one tonsil, and sometimes upon both, are seen distinct white patches of exudation of false membrane. These soon extend over the uvula and posterior wall of the pharynx. The exhudation adheres more or less firmly to the adjacent mucus surface, and cannot be easily removed. In a few cases the exudation remains confined to the tonsils, and neither grows black nor putrifies. The surrounding mucous membrane is swollen and projecting. The parotid and submaxillary glands are not much swollen. The duration of the mild form of the disease is from six to nine or ten days. In the severe form the disease is ushered in by intense headache, hot, pungent skin, rapid full pulse; there is great difficulty in deglutition, and the respiration is much hurried. The tongue is covered with a thick, dirty-brownish coat. On examination of the throat, the tonsils are found enormously swollen and covered with a thick, ash colored membrane, which has also extended to the uvula and to the posterior walls of the pharynx, and not unfrequently gives out a fetid odor.

Unless arrested by treatment, all the symptoms increased in severity, the respiration becomes much oppressed, there is a barking cough, and a change in the voice, which becomes hoarse and indistinct; the deglutition becomes so painful that children refuse to swallow even liquids; the saliva dribbles

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from the corner of the mouth, and an acrid discharge flows from the nares. The glands of the neck are greatly swollen and tender. The patient is restless to an extreme degree, tossing about and then sinking into a semi-comotose condition. These cases when they prove fatal, as is the general rule, terminate either by rapid prostration of the vital powers or by an extension of the diphtheretic membrane into the air passages. This membrane presents the character of a fibroplastic membrane.

In the larnyx it presents a whiter color than when it is situated in the fauces, and very much resembles the membrane thrown out in true croup, although it is softer and often soddened by the sanious matter which exudes from beneath and around it. This exudation is preceded by a sero-mucous transparent liquid, which in some cases is very abundant. This liquid once exuded soon takes on more density, and closer adherence to the surface which secretes it, and at certain points becomes a little less transparent, assumes a yellowish tinge.

These points soon run together, coalesce, and thus form a very thin pellicle, which may be regarded as the commencement of the false membrane. In many cases the membrane thus formed appears to remain for some time stationary, and then sooner or later takes on an increase in thickness as well as in extent of surface. The secretion of sanious fluid which embues and softens the concretions is also increased, becomes very dark colored, and exhales a fetid ordor similar to that of gangrene. As regards the particular seat of the exudation, it is sometimes situated upon the cutaneous surface, at other times upon the mucous, and not unfrequently upon both at once.

A curious fact which has been observed in regard to the seat of the diphtheritic exudation, is, that although it is found equally in the mouth, in the soft palate, in the tonsils, the pharynx, the nasal fossa, the larynx, trachea, and even the bronchial tubes, on the conjunctiva, the vulva and anus, and upon the skin, it is not found upon those portions which are removed from the contact of the air; these seem to be refractory to the extension of the disease. The atmosphere would

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thus certainly seem to exert an influence in promoting diphtheritic inflammation. The essential character of the diphtheritic exudations, and that which distinguishes them from other forms of exudation, is that they have the power of organization and never become vascular. Hence they never concur in the reparation of tissue, but putrify on the surface if they be not removed, existing always as a foreign body. The exact relation which exists between diphtheria, laryngial croup and scarlatina has been a much debated question. By some persons the two affections, notwithstanding certain points of strong resemblance, are regarded as essentially different. By others diphtheria is regarded as a form of scarlet fever, in which the throat affection is unaccompanied by the eruption which usually characterizes it. We think that there are some circumstances which favor this latter opinion. For instance, not only do the two diseases prevail frequently at the same time in the same region, but even in the same family; some members being attacked by all the symptoms of true diphtheria, while others present the symptoms of common scarlatina. Then again in some instances, in those who have been attacked by diphtheria a rash similar to that of scarlatina has been observed. This rash may have been partial and may have remained but a few hours, but its characters have been thought sufficiently marked to leave no doubt as to its nature. This rash has been occasionally noticed in some epidemics of diphtheria, but in the great majority it has not been observed at all. Whereas, in epidemics of scarlet fever its absence is a rare exception, and occurs only in those cases of very malignant character which are marked by great cerebral disturbance, violent delirium and by speedy death. In diphtheria, on the other hand, the intellect usually remains undisturbed until the very last. In a lecture on diphtheria by Dr. Ranking and published in the *Lancet*, we find the following remarks: "The great distinctive mark between diphtheria and croup, properly so called, is to be found in the locality chiefly affected. In both, it is true, a main feature is the presence of an exudation; but in the one disease, it commences in the fauces and only reaches the windpipe by extension, and in a certain number of cases; in the other, that of true croup, it commences in the larynx and

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trachea, and does not necessarily affect the soft parts above the glottis at all. As a consequence of this a marked difference is also found in the symptoms of the two diseases. In diphtheria the uneasiness is first referred to the parts subsequent to deglutition; in croup, on the contrary, the earliest symptoms is that of stridulous voice and breathing—a symptom which, in the former, indicates the final development of diseased action."

It is well known that Dr. West in his valuable work upon Diseases of Children has considered diphtheria as a form of croup. In the last edition of his work, however, he has seen fit to somewhat modify his previous views. In speaking of diphtheria and croup he says: "Of these two diseases the one is almost always idiopathic, the other is often secondary; the one attacks persons in perfect health, is sthenic in its character, acute in its course and usually proves ameanable to antiphlogistic treatment. The other attacks by preference those who are out of health, or who are surrounded by unfavorable hygienic conditions, and is remarkable for the asthentic character of the symptoms which attend it. The one selects its victims almost exclusively from among children; is incapable of being diffused by contagion; is governed in its prevalence by influence of season, temperature and climate, but rarely becomes, in the usual acceptance of the term, an epidemic. While the other attacks adults as well as children, is propagated by contagion and though it occasionally occurs in a sporadic form, is susceptible of wide spread epidemic influence."

Whatever differences exist between croup and diphtheria must be sought elsewhere than in the pathological changes observable in the respiratory organs, and the affinities of the latter disease are seen to be to the class of blood diseases, rather than that of purely local inflammation to which croup belongs. sequela of scarlatina and diphtheria are widely different. For while on the one hand, we have none of the formidable dropsical symptoms in the convalescence of diphtheria, which so often succeed to scarlatina, in the other we do have a peculiar loss of nervous power and temporary muscular paralysis which have no analogy to anything in the sequela of

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the latter disease. Again, almost universal experience leaves testimony to the fact that diphtheria does not protect from scarlet fever, nor on the other hand, does scarlet fever form any defence against diphtheria.

Diphtheria is a specific disease. The fact is shown by its origin, its progress, its manner of termination, and its sequela. The formation of an aplastic membranrus exudation upon any portion of the cutaneous or mucous surface which is exposed to the contact of the atmosphere is diagnostic of the disease. It is propagated by infection and contagion, and is both epidemic and sporadic in its invasion. Its characters plainly indicate that it belongs of blood diseases. It is not allied either to cynanche trachealis or scarlatina.

TREATMENT.—Like all diseases which have prevailed epidemically, diphtheria has been subjected to a great variety of treatment. It is only within the last few years that anything like unanimity has existed in the profession in regard to this important point. Bleeding, both local and general, blisters, certain local applications to the pharynix, rapid mercurialization, formed the treatment in all cases. Mercury, in fact was considered the sheet anchor by a majority of medical men. Although a few practitioners may still make use of this therapeutic agent, it is now generally agreed that such is the asthenic nature of the disease at the present day, that depletion is not born well in any form, neither is the action of mercury defensible either in theory or practice. As we are yet unacquainted with any specific capable of arresting the course of diphtheria, our treatment must be directed simply to conducting our patient in his progress through the disease. The most scrupulous cleanliness of person and surroundings, free and uninterrupted ventilation should be insisted on. As regards external local applications in the very early stages of the disease, if there is much heat and engorgement about the throat, cold wet compresses may for a time give relief. Blisters are to be avoided, both on account of their adding, by their irritation to the engorgement and to the cellular infiltration, and on account of themselves putting on a diphtheritic or sloughy character. As everything in the aspect of the disease from the first, indicates that the powers of life must not be lowered,

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but on the contrary that the tendency to prostration must be averted in every way, neither leeches nor local bleeding are admissible, except perhaps in very rare exceptional cases. Anything like purging is to be sedulously avoided on account of the asthenic nature of the disease. The bowels should be moved by enemata, or by some mild laxative. There are occasional cases of diphtheria so mild in character that local applications to the fauces may be sufficient, but as a general rule it may be conceded that the disease requires a tonic and sustaining treatment, particularly is this the case at a late period of the disorder. In cases at all severe, the tendency is to depression and to death by asthenia, unless earlier terminated by asphyxia. Stimulants and nourishment should be commenced with early, and persisted in systematically. The amount, of course, must depend upon circumstances, but in order to insure efficiency, they should be varied, should be given in small doses, at regular and frequent intervals, and if rejected by the stomach should be given in the form of enemata. Injections of beef tea with brandy and quinine, may be employed and thus life may be not unfrequently sustained, when otherwise it would have been extinguished. With regard to the particular forms of internal tonics, there is a variety of opinion. Of these we may mention quinine, tincture ferri chloride, and chlorate of potash. The tincture of sesquichloride of iron seems now to be preferred by the great majority of physicians, on account of its unquestionable usefulness in the more asthenic forms of disease. The dose is from 10 to 15 drops in water every 3 or four hours. Of the many internal remedies which have been advised we do not know of any one on which so much reliance can be placed as on the tincture of sesquichloride of iron, with chlorate of potash, chloric ether, and hydrochloric acid in the form of mixture, sweetened with syrup, full doses being employed according to the age of the patient and frequently repeated. A free use should be made of generous wine, beef-tea in combination with brandy and wine, milk and whatever form of nutriment may be admissable. Quinine may be administered in mixture with or without the hydrochloric acid, or in the form of pill; the dose and frequency of repetition must be governed by circumstances. If the chlorate

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of potash be preferred, it should be given in doses of from four to eight grains, according to age, in a bitter infusion with 2 to 5 drops of the dilute hydrochloric acid.

There are a multitude of substances which have been used as local applications. The nitrate of silver either solid or in solution has been, perhaps, used more extensively than any other substance. This, when used early in the disease, seems in many cases to check the progress of the exudation; yet it does not answer the purpose altogether, and further experience has somewhat diminished confidence in it. In some instances it is a question whether the free application of this caustic does not rather add to the evil. Still if carefully and properly used, nitrate of silver in many cases is undoubtedly of benefit. If in solution it is to be applied by a camel's hair brush, swabbing the diseased surface quickly at the same time thoroughly. The strength of the solution should be from 30 to 60 grains, and perhaps higher to the ounce of water. The tincture ferri chloridi is an excellent substitute for the nitrate of silver. This may be applied by means of a brush or sponge, a camel's hair brush is to be preferred. The hydrochloric acid is useful in some cases. In the case of children, the addition of honey to the acid is desirable. Another gargle, which is very efficacious, and which has the advantage of correcting the fetor of the breath and the secretions of the throat, is a solution of the chloride of soda, in the proportion of one drachm to six ounces. The same may be said of the chlorate of potash. The combination of chlorate of potash and hydrochloric acid with the tincture of the sesquichloride of iron is strongly to be recommended, especially in the croupal cases, the chlorate of potash having an undoubtedly antiphlogistic influence, where time exists to bring it into play. Numerous other applications to the fauces have been advocated and successfully employed. Among these may be mentioned strong solutions of sulphate of copper, the chloride of sodium, either by itself or combined with vinegar; gargles of tannin, capsicum, &c.

Although there is some diversity in the treatment of diphtheria as laid down by different authorities, still it will be seen that the affection is considered by all as one decidedly adynamic in its character, and that consequently a supporting treat-

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ment is necessary, and all depletory measures are to be strictly avoided. Authorities are also united upon the necessity of a more or less energetic local treatment, particularly in the early stages of the disase.

FAMILY OF SEVEN PERSONS POISONED BY ARSENIC.

BY JOHN W. PARSONS, M. D.

Old P. quarreled with his family, procured three drachms of arsenic, put it into a can of milk and left the country. A few hours afterward the family consumed the milk for dinner, and in two hours they were all very ill, all but two were vomiting. All complained of burning pain in the throat and stomach, there was dryness and tightness in the throat, cramps, clammy sweats, great weakness, intense headache, some had diarrhœa with griping pains, some were in bed and were sure they were about to die. I immediately made a copious solution of the sulphate of zinc and gave it very freely until all were freely vomiting. I then gave the subcarbonate of iron very freely, mixed with water as thick as cream, and as fast as it was vomited would repeat the zinc followed with the iron.

Towards morning some of them were asleep and by daylight all were convalescent. I believe the subcarbonate to be as good as the hydrated peroxide.

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EFFICACY OF PERSULPHATE OF IRON IN ARRESTING HEMORRHAGE.

BY JOHN W. PARSONS, M. D.

E. M. got drunk and slept in the woods on the night of January 31st. The exposure froze both feet up to the tibio-tarsal articulation, and also brought on an attack of double pneumonia. For 30 days he lay in a very critical condition. The feet, in the mean time mortified; the line of demarcation having formed close up to the tibio-tarsal articulution. On the 5th day of March, Dr. Larey and myself examined him and found he had recovered from pneumonia, had bed sores, abscesses over his hips, sinuses abscesses in his legs, particularly the right leg, which, to use the graphic expression of his brother, "felt like a rotten water-melon." About the middle of his leg was a huge abscess, extending from three inches above the line of demarcation quite up to the knee. From a small opening at the middle and inner side of the leg issued a large quantity of unhealthy pus. He had hectic fever, and his appetite was failing rapidly. The bottom of the line of demarcation was more than half an inch wide, and displayed nothing but necrosed bones. We decided that amputation offered him the only chance for life. We were prepared to operate. Dr. Larey gave the chloroform and I performed the lateral flap amputation, lower third of each leg. He lost very little blood. The flaps were brought together with sutures, and dressed with dry lint. Three days afterward we dressed the stumps, and while handling the right leg we found the abscess had increased in size, and suddenly arterial blood began to flow rapidly from the opening. We judged from the amount of bleeding that the posterior tibial artery had sloughed. Dr. Larey compressed the femoral artery and *I injected about half an ounce of the liquor ferri persulphatis. The bleeding instantly ceased*, and did not return again. Next day quite healthy pus came from the abscess and it soon diminished in size and healed. At this

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date the stumps are quite healed; he eats and sleeps well, smokes, swears, and chews tobacco as freely as ever; in fact his health is as good as ever—(April 2d). This I consider a remarkable case, and the arrest of hemorrhage by this means as far better than a second amputation above the bleeding point, which would have been perfectly justifiable. Hardly a more unfavorable case could occur and yet the result has been very satisfactory.

CASE OF FEMORAL HERNIA; OPERATION; RECOVERY.

BY R. MORRIS, M. D., LAWRENCE, KANSAS.

Mrs. W., of Eudora, Kansas, aged fifty-four, of moderate health, about twenty years since observed a small tumor in the right groin, which proved to be a femoral hernia, and which has several times since given more or less trouble by becoming partially strangulated.

February 23d, 1867, at 6 A. M., she discovered that it was larger than usual, and made an attempt to reduce it, but failed. Soon after, her husband, who is a physician, also made an unsuccessful effort to return the intestine. Dr. Donovan was then called to see the case, and made another effort to reduce it, and failed. A consultation was agreed upon, and I was sent for in the afternoon. Saw the patient about 9 A. M., and found the tumor, upon examination, to be as large as a medium sized hen's egg, rather hard, and somewhat painful. Occasional vomiting had occurred, but nothing of a stercoraceous character had been ejected. As the symptoms were not very urgent, it was thought best to make another attempt by taxis. Accordingly a large dose of sul. morphia was administered, a warm sitz bath prepared, and the patient placed into it; at the same time chloroform was given till complete anesthesia was produced. The patient was then placed in proper position, and a persistent, though cautious effort was made to return

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the strangulated contents, but, as before, without success. As the symptoms were not as yet alarming, it was thought prudent to try the narcotic treatment, so highly spoken of by some, hoping in this was to secure a spontaneous reduction. The patient was kept fully under the influence of sul. morphia for six hours, but no relief came. On returning to consciousness, the patient manifested symptoms of a more grave character, and, on further consultation, a resort to the knife was thought inevitable. I was requested to operate. The patient was chloroformized by my friend, Dr. Donovan (who also rendered efficient aid during the operation). I made an incision in the direction of the long axis of tumor, by first transfixing the integuments and cellular tissue, and then slowly and cautiously divided the remaining tissues until the sac was reached. The stricture was sought for and found to be very firm and resisting. Using the index finger as a director, I passed it, with some difficulty, within the stricture, and with a probe-pointed bistoury, previously prepared by dulling about an inch of its edge, carefully divided it. On attempting to return the contents of the sac, (I did not divide the sac) I found some bands of adhesion which I broke up, and then returned it very readily. There was no discoloration of the sac or its contents. The opening was closed by sutures as usual, and a simple water dressing applied, and directions given to administer opiates freely if much pain or any symptoms of peritonitis should supervene.

At no time during convalesence was there any unfavorable symptoms, and the patient is now in usual health, with a reasonable prospect of a radical cure.

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ESSAY ON THE MALARIAL MIASM PERVADING NON-MALARIAL DISEASES.

BY CHARLES C. SHOYER, M. D.

Your essayist for the occasion has undertaken to give the result of his past year's experience in this city. Should he fail to interest you, he at least merits your approbation for the effort to please. We are all of us supposed to be acquainted with the contents of our text-books and the current literature of the profession, as disseminated in our medical journals. The caption of my essay presupposes that I am about to open a new source of exploration, but I am happy to dispel such illusions, and assure you that what I am about to communicate is well known to all of you, though not contained in text-books or journals. It has doubtless occurred to all of you, in prescribing, to notice irregularities in the normal course of diseases, this I take it is common to all countries, but in Leavenworth there is a tendency for diseases to merge into a periodical form; I do not wish to be understood as denying that it may not prevail in other parts of the State, for I believe it does; a better way of expressing myself would be to say that periodicity complicates non-malarial diseases. You find it in treating pneumonia, pertussis, bronchitis, diarrhœa, dysentery, dentition and the erruptive fevers. If you perform a capital operation, as an amputation of the thigh performed by a surgeon of this city, you are apt to encounter a sympathetic fever that will only yield to quinine pushed to cinchonism; the same holds true of minor operations; for in a case of hemorrhoids that I operated on, assisted by Dr. Carpenter, pains of such intensity came on in the abdomen, after the operation, that it suggested peritonitis, especially as there was vomiting, extreme tenderness to pressure, constipation, etc.; but there was wanting the characteristic pulse, and peritonitis, except in the puerperal state, is a rare disease. Watching closely, Dr. C. and myself noticed a periodical tendency, and quinine cured the alaming symptoms. You treat cephalalgia, neuralgia, myalgia, and even rheumatism better

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and more speedily if you combine with or administer simultaneously, the great specific and your other remedies. I have in mind a case that I saw in consultation with three other physicians, a case of great interest and danger—chronic dysentery—which resisted in turn all the remedies exhibited, but upon adding quinia to our treatment the case at once improved and recovered in a very short time. This case was so dangerous as to be considered hopeless; a suggestion was made that there might lurk a malarial basis, but the closest scrutiny failed to unveil it and it was only proven to exist by the employment of the remedy.

Even in cervicitis I have found quinine indispensible to a perfect cure; I do not wish to be understood as meaning all cases. A case of odontalgia, in a pregnant female, resisted all the remedies employed excepting quinine and it was employed last. Two cases of hysteria showed a periodical tendency and were cured by it. I saw a case of insomnia with pains in the loins and extremities, no thirst or signs of fever; the fact of the pains and the patient falling asleep about 5 A. M., suggested a probability of periodicity, which treatment proved to be correct. I am at present treating a case of chronic albuminuria in which there occurs copious hypercatharsis every night at 1:30 A. M. I ordered quinine in sufficient doses and the hypercatharsis ceased as soon as quininism was induced; there was no action from the bowels at other times excepting ordinary stools. A friend has imformed me that this periodical tendency of disease is so common in his practice that he now gives quinine in almost all diseases, and pushes it to its full effects, and is rewarded with success in many cases, where formerly he met with disappointments innumerable.

To illustrate the object of this paper I will take a case to typify—say a case of pneumonia; the patient will tell you he is worse in the forenoon, has great thirst, feels nauseated and chilly, has pain in his legs, etc.; his friends will inform you voluntarily that the patient has bad spells, is delirious, coughs more, is exceedingly restless, etc., etc.; your own observations on visiting at different hours of the day confirm the above, and lastly, the treatment proves that a malarial taint was un-

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derlying the principal disease. This malaria does not especially render the pneumonia, or any other disease it may complicate, more dangerous, it simply seems to protract it. I have taken two cases of pneumonia complicated as above and treated them alike, with the exception of withholding quinine from one; the case getting quinine convalesced rapidly as in ordinary uncomplicated pneumonia, the other deepened into a continued form of fever, the cough grew worse, delirium was greater, skin hotter and dryer, respiration more frequent and labored, thirst extreme, expectoration scanty and very viscid and but slightly rusty, pain in chest far more sever, pulse ranging from 120 to 130; these grave symptoms all yield promptly, in a short time, as soon as the system was brought under quinine. There are some points in the treatment that are of importance. In continuing your medication the prolonged use of quinine deranges some of the organs and functions; for instance, in two cases of dysuria complicating intermittent fever, the dysuria yielded at once on discontinuing it. In two cases of remittent fever its prolonged use occasioned some gastro-enteric trouble, such as abdominal pain, furred tongue, nausea and vomiting; it also disturbs the nervous system, causing cephalalgia, dilated pupil and considerable agitation. These symptoms were not due to the fever but clearly resulted from the quinine.

Some of the most observable symptoms, as a result of the long continued use of quinine in large doses, say five grains daily, after having once pushed it to its full physiological effects, are a flushed face, dilated pupils, pain in the stomach and abdomen, thirst, etc., and a marked feature is the protracted convalescence occasioned by it. I have sometimes continued quinine for these very symptoms, and only discovered my error on discontinuing it and pursuing the expectant treatment. It may be asked how I will prevent these pathological effects of quinine. I reply that this is not always possible, but I think hydrochlorate of ammonia, which I am in the habit lately of giving after discontinuing the quinine, has been productive of some good. I think that the tongue cleans more rapidly, and the unpleasant effects of the quinine disappear more promptly under its use than when the case is left

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to nature. It is also well known as an anti-periodic and of itself capable of curing periodical fevers. As to the dose of quinine I consider it a very minor import; my plan is to give three grains every two hours till there is a ringing in the ears; if I wish a more speedy action I give six or nine grains at once and then three grains every two hours, or hourly, till I obtain its effects; afterwards a daily dose of two or four grains. I supposed at one time that malarial taint was not prevalent in winter, more extended experience has convinced me to the contrary, and I find that it exists during the entire year, only more violent during spring and autumn. I have observed it in summer complicating cholera infantum, and in a case that was nearly abandoned as hopeless, having in turn baffled all the usual remedies suggested by a consultation of physicians, quinine in two grain doses, per enema, for a child of sixteen months, repeated every eight hours, performed a cure. I saw in February last a lady aged 45 years, who presented many of the features due to tuberculosis; she had lost considerable flesh, had a poor appetite, bad cough with copious expectoration; father died of this disease; had been pronounced consumptive seven years before, had pain in the left chest, had hectic flush on cheeks every afternoon, pulse 90, respiration 33 per minute, jerking inspiration; but this was not tuberculosis; percussion sound clear on both sides; auscultation showed that air permeated every portion of both lungs. Now I did this; I compromised the matter; I ordered quinine pushed to its anti-periodic effects and told her to take cod-liver oil and whiskey; in three days she was well—yes, well. She kept the quinine down and vomited the oil and whiskey. I have thus hurriedly run over a subject that merits greater attention than I can bestow on it and present it in this unfinished manner; it was intended for our local medical society, where the members read essays at our semi-monthly meetings. I must apologize for not reading one more worthy the occasion, and can only hope such feeble efforts will stimulate others to produce essays fitting our young society.

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INFANTILE OR OBLIQUE FRACTURE OF THE VERTEBRA.

BY W. E. TURNER, M. D.

The spinal column, notwithstanding its strength, compactness, and the geometrical precision of its every movement is quite liable to fracture. In the adult, when the bone has attained its growth and firmness, a blow sufficient to cause a fracture leaves but little hope that aught else than death must soon follow the fracture of one of the vertebra. With the case of fracture now under consideration there is more hope of remedying the evil, and the greater reparative powers must give an additional advantage in its favor.

This disease is one which, from the obscureness of its origin, is frequently mistaken for some general ailment and treated for such until the disease has made such progress as to baffle the skill of the surgeon when the true cause of trouble is known, or death has come to the relief of the little sufferer.

The spinal column is so constructed that two opposing forces occurring at the same time must impinge the body of one of the vertebra with great violence. Under different circumstances it will vary as to the point on which the force will be brought to bear; but falls on the back from a height, or on the nates or shoulders will, from the weight on one hand and violence on the other, impinge on the sixth or seventh dorsal vertebra, the one most often found diseased.

The observation has been made that owing to the incomplete ossification of the child's vertebra, it is much more susceptible of derangements and effected by traumatic influences, than at a more advanced period of life. When we take into consideration the climbing and hazardous rambling of children, we cannot fail to allot to violence a due share in the cause of the disease we now have under consideration.

Many writers on the subject of caries of the vertebra, disease of the spine, speak of them in general terms as though

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it was just as frequent occurance in one region as an other. But we find it occurring in one of two regions much more frequent than in other portions of the spine; we find caries oftener in the cervial or dorsal, but by far the most frequent in the region of the sixth or seventh dorsal vertebra. Now when we find a disease showing a decided tendency for one or more vertebra in the same region, and knowing they are composed of the same elementary constituent, we must look for some other cause than one acting generally, as a tuberculous or stumous diathesis, is known to act. I think we can find a true cause in an oblique fracture of the vertebra. We find in it the same train of symptoms different writers call caries of the vertebra, anterior curvature of the spine, &c.

For convenience sake we will suppose a child in climbing a fence, a staircase or chair, falls giving her a blow striking her on the back and shoulders; perhaps the fall has elicited a vigorous crying spell from the little sufferer and for the time forgotten. In a few days it will complain of some trifling and general trouble that will run on for some time when certain phenomena are presented that more plainly mark the initiatory of spinal trouble, and as the symptoms have been of such a general character the inexperienced will find it by no means a ready matter to diagnose his case with ease. The patient becomes pale, anæmic, with but little activity, bowels become constipated, urine scanty and turbid, its rest broken by restlessness and frequent moaning, will soon desist from play while playing and complain of shortness of breath. One of the most marked and true evidences of a fracture, is a desire of the little one to lean forward on something in order to rest the upper portion of the body; to resist the inclination to lean forward it will often step to a chair or rest its head on its hands and knees. With this condition of the patient we have a peculiar pain, not over the seat of injury, but one felt around in front of the body. We have in this, as in the adult fracture, a protrusion of the spinous processes of the vertebra as the vertebra decays, thus giving a definite pathognamonic sign of the disease. In the adult we always have paraplegia or partial paraplegia as an immediate result, showing that we have not

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only fracture, but dislocation of the vertebra in which the spinous process impinges on the cord produces paraplegia or partial paraplegia.

In the fracture occuring in childhood we seldom have paraplegia, when such is the case it generally comes on gradually. It is most frequently due to the congestion, inflammation and pressure of the abscess itself against the cord. That it is not due to mechanical pressure, is pretty well understood by its subsidence under a few hours of antiplogistic treatment with cupping and leeching, cold applications to the part and the prone position. Another reason for believing it to be due to congestion, or inflammation of the part, is that it does not come on as an immediate result, and at other times, notwithstanding a great deformity exists, little or no paralysis is found. In a case I saw but a few months ago the gradual inability to support the upper half of the body was the first signs which led the parents and physician to think he not only had a case of pleurisy, but disease of the spine, that pleurisy was only the secondary result of fracture of the vertebra. This fracture was afterward traced back to a severe fall the child received by falling backwsrds out of its cradle. The fracture occurred in the region of the seventh dorsal vertebra; the child continuing to run and crawl around for some five weeks before any noticable sign of paralysis took place.

The continued friction of the parts prevent union from taking place, and instead of union we have increased inflammation until eventually we have caries of the vertebra, as the result of the long continued pressure, and congestion of the minute capillary vessels of the part, resulting in consecutive abscesses in the part as the most common result.

Now these abscesses must sooner or later break and be discharged as it is impossible for them to be absorbed entirely, and any remaining pus must exert a very deliterious influence on the surrounding parts. It will finally make its exit in the direction of the least resisting force, and should the fracture be in the dorsal region, the pus is very liable to enter the cavity of the pleura exciting pleuritis, which will terminate the patient's life. It may in the early stages only excite sufficient pleuritis to unite the costal pleura to the lung pleura,

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when we may then have the contents of the abscess to discharge itself through the lung. This will be attended by increased anæmia and cough, and from the expectoration the physician is led to think his patient has phthisis-pulmonalis, with tuberculous deposits in the vertebra and as such treated, and as such it dies. We can receive no aid or comfort by resorting to the microscope as a means of diagnosising our case, for it lends us no aid definite enough to distinguish softened and disintegrated tubercle from pus occurring in chronic abscesses in the region of those organs prone to deposits of tubercle; oil globules, degenerate lymph, cytoblasts, cholesterine, aborted, shriveled and shrunken epithelial cells are formed alike in both. I am of the opinion it must be in these cases that some medical writers so often find such wholesale deposits of tubercle they speak of; calling a wonderful deposit of tubercle in the vertebra, causing caries, and death of the patient. Some time since I read an article in the *American Journal of Medical Science* of 1864, where a surgeon finds something like a quart of tubercel deposit in the dorsal vertebra, which he discovered in a post-mortem examination, which I think was an abscess resulting from an oblique fracture of the vertebral body.

Quite recently I had the privilege of examining quite a number of diseased spines belonging to Prof. Louis Bauer of the Brooklyn Surgical Institute, who has made a great many post-mortem examinations of those coming under his care (he being one of the most scientific orthopoedic surgeons in America) his research has led him to the belief that oblique infantile fracture is one of much more frequent occurrence than it is supposed to be, and one that the true pathology is very indifferently understood by the profesion.

Should the fracture be in the lumbar region we would expect the abscess to break in the direction of the least resisting tissues, which would be behind the peritoneum, and beneath the fascia of the proas magnus muscle; working its way downward and inward to the proas parvus we may reasonably expect it then may break into the abdominal cavity, and cause death by peritonitis; should it break into that cavity and death not follow we may then see it discharged

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per vaginum or anus. Not an unfrequent direction is along the proas magnus muscle to near its insertion in the lesser trochanter of the femur, when it seeks an outlet from the facia and integument in Scarpa's triangle.

These fractures do not, of a necessity, always form an abscess, for we find those who have had caries of the vertebra, and have never been troubled with an abscess of any consequence, but we find the gradual softening or fatty degeneration of the bodies of the vertebra and articular facets until we have a horrible deformity curving the upper half of the body forward until we have almost a right-angle of the vertebral column, the last true ribs resting upon the ilium, greatly infringing on the capacity of the thorax, it being longest in its antero-posterior diameter and greatly lessening the number of cubic inches of air inhaled, the function of the abdominal vicera greatly perverted, especially that of the great organic nervous system.

Now the success in the treatment will be due in part to the early recognition of the disease and the amount of quietude enjoined on the patient, perhaps more to be accomplished by the latter means than by any other treatment, and without it can not hope to bring our case to a successful issue. The great recuperative powers of the young child are greatly in our favor to commence with, and rest in the prone position, gentle extension and counter-extension, with local antiphlogistic treatment, pure air, nutritious food, and such other remedies as are promoters of a plastic condition of the blood are now indicated. Among those instruments best adapted to promote extension and counter extension are weights and pulleys, also the cuirass, an instrument much used by orthopoedic surgeons in both Europe and America, but the expense and the general inaccessibility of the latter instrument would be a serious objection to it. The stretch-bed is an instrument that can be improvised by most any surgeon of any mechanical genius, and one well adapted to the exigencies of the case.

The length of time necessary to form a union of the parts will greatly vary in different individuals, generally much longer in one of a scrofulous diathesis than one of a more plastic diathesis. Generally from five to seven months may

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be sufficient in most cases. Should a weakness of the spine be felt, with an inclination to lean forward, an instrument similar to those used for correcting lateral curvature of the spine can be worn without inconvenience and with great benefit to the wearer.

PROCEEDINGS OF THE KANSAS STATE MEDICAL SOCIETY, AT ITS THIRD ANNUAL MEETING, HELD IN LEAVENWORTH, APRIL 3D AND 4TH, 1867.

[REPORTED BY D. W. STORMONT, M. D., SECRETARY.]

The Society was called to order at 9 o'clock, A. M., April 3d, by the president, Dr. C. A. Logan.

Members present: Drs. Logan, Sinks, Brock, A. Newman, J. L. Prentiss, Stormont, Davis, Campbell, Budington, Houston, Root, Barber, Carpenter, J. J. Crook and Thomas.

The minutes of the last meeting were read by the secretary and approved.

The president then delivered the Annual Address, and welcomed the members to Leavenworth.

On motion of Dr. Newman, it was referred to the Committee on Publication.

Drs. Sinks, Brock and Newman were appointed Censors.

The following gentlemen were elected members of the Society, and those who were present signed the Constitution and took their seats during the session, viz; Drs. V. V. Adamson, John Parsons, J. R. Russell, R. Morris, J. A. Moore, N. C. Clark, J. Robinson, J. L. Wever, W. B. Carpenter, S. W. Jones, L. P. Stiles, C. C. Shoyer, W. E. Turner, E. Tefft, M. A. Campdoras, O. E. French, J. M. Linley, W. J. Burge, D. W. Taylor, J. A. J. Larey, H. S. DeFord, A. Potter, J. J. Paramore, H. L. Kennedy, W. W. Crook and S. Phillips.

On motion of Dr. Newman, Mr. R. J. Brown, Pharmaceutist, was invited to a seat on the floor during the sessions,

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Dr. Sinks, chairman of the committee, read the report on climatology, which was referred to the Committee on Publication. The president appointed as the Committee on Publication, Drs. Brock, Parsons, Houston, Adamson, Sinks, Budington and Stormont;

Also, as Committee on Unfinished Business, Drs. Budington, Wever and Robinson.

The treasurer submitted his Annual Report as follows:

I have to report the receipt of eighty-seven dollars ($87.00) for admission fees. There having been no orders for expenditures, this is the amount in the treasury.

J. L. PRENTISS, *Treasurer.*

On motion, the report was received and referred to an Auditing Committee, consisting of Drs. Clark, Moore and Barbour.

A communication was read from the Shawnee County Medical Society, inviting this Society to hold its next annual meeting in Topeka.

On motion, the Society adjourned to 2 o'clock P. M.

AFTERNOON SESSION.

The Society met as per adjournment, the president, Dr. Logan in the chair.

Dr. Budington, from the Committee on Unfinished Business, submitted the following report:

Your Committee would respectfully report, that there is an amendment to the By-Laws, to be acted upon, which was proposed at the last meeting; also, that a report is due from the committee appointed at that meeting, to confer with the Regents of the State University in regard to establishing a Medical Department in that Institution; also, from the committee appointed to have our Charter amended by the Legislature, and to have our transactions printed at the expense of the State. All of which is respectfully submitted.

Committee, { GEO. E. BUDINGTON,
J. L. WEVER,
J. ROBINSON.

On motion, the report was received and the committee discharged,

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Dr. Clark, from the Auditing Committe, submitted the following report:

Your committee to audit the account of the Treasurer, would respectfully report that they have performed that duty and find the same correct.

N. C. CLARK.
J. A. MOORE.

On motion, the report was received and the committee discharged.

Dr. Budington offered the following resolution, which was adopted:

Resolved, That the members of this Association be earnestly requested to form County and City Societies, in their respective localities, as auxiliary to the State Medical Society.

The president appointed as a committee to nominate officers for the ensuing year, Drs. Budington, Russell and Adamson.

Reports of standing committees being in order, the secretary read the report on surgery, by Dr. Bailey, chairman of the committee.

Dr. J. L. Prentiss, one of the committee, read a paper on the use of water in surgical practice.

The report on Practical Medicine was read by Dr. Stormont, chairman of the committe.

Dr. Logan, chairman of the committe, read the report on Obstetrics.

On motion of Dr. Davis, this report was made the subject of discussion at 9½ o'clock to-morrow morning.

Dr. Russell read the report of a case of Strangulated Hernia, by Dr. Morris.

Dr. Newman read a paper on "The Uses in the System of the Two Groups of Proximate Principles—the Fats and the Hydrated Carbons."

Dr. Parsons reported a case, showing the efficacy of persulph. iron in arresting hemorrhage.

On motion all these papers were referred to the Committee on Publication.

Dr. Sinks, in behalf of the special committee, appointed at the last meeting, to confer with the Regents of the State University in reference to the establishment of a Medical Depart-

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ment thereto, reported that they had discharged their duty; but the Regents deemed it inexpedient to take any action in the matter, at present.

On motion, the report was received and the committe discharged.

The committee to nominate officers for the ensuing year, reported—

For President—Dr. A. Newman.

For Vice-Presidents—Drs. J. W. Brock and J. Parsons.

For Secretary—Dr. D. W. Stormont.

For Treasurer—Dr. J. L. Prentiss.

For Librarian—Dr. N. C. Clark.

For Censors—Drs. Bailey, Thomas, Sinks, Adamson, Russell, J. Robinson, Wever, Barbour and Hogeboom.

The Society then went into an election, and the gentlemen nominated were elected to the respective offices.

On motion of Dr. Stormont, the communication from the Shawnee County Medical Society was taken up.

After some discussion, on motion of Dr. Shoyer, as amended by Dr. Newman, it was—

Resolved, That the next Annual Meeting of this Society be held in Leavenworth, commencing on the third Wednesday in April 1868.

On motion adjourned to meet at 7½ o'clock this evening.

EVENING SESSION.

The Society convened as per adjournment; Dr. Logan, the president, in the chair.

Dr. Davis presented a case, under treatment, and made some remarks on the treatment of congenital vascular tumors, by the actual cautery.

Dr. Clark favored the Society with some remarks on the value of euphorbia maculatum in dysentery and diarrhœa.

Dr. Brock read an article on diphtheria.

Dr. Turner read an essay on oblique fracture of the vertebræ in children.

Dr. Parsons reported a case of poisoning by arsenic.

Dr. Shoyer read a paper on periodicity of non-malarial diseases.

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On motion, all these papers were received and referred to the Committe on Publication.

Dr. Sinks offered the following resolution:

Resolved, That a medal, of the value of five dollars, be offered as a prize for the best essay on the endemic diseases of Kansas, the contestants to be confined to members of this Society; and that a committee be appointed to examine the essays, and adjudge the award, according to the rules customary in such cases; said committee to report at the next meeting.

The resolution was adopted, and Drs. Wever, Sinks, Root, Budington and S. B. Prentiss were appointed the committee.

It was moved by Dr. Root, and adopted, that all essays competing for the prize, shall be sent to some member of the committee before the first day of February, 1868, with a motto; the name of the writer being in an accompanying sealed envelope with the motto on the outside.

On motion of Dr. Stormont, the society went into the election of five delegates to the American Medical Association for the present year. Drs. Root, Logan, Potter, Shoyer and French were elected.

On motion of Dr. Root, each delegate was empowered to appoint his own substitute in case he cannot attend.

Dr. Shoyer moved that two hundred copies of the transactions of this meeting be published. Carried.

Dr. Sinks offered the following resolution, which was adopted:

Resolved, That discretionary powers be conferred on the committee on publication, to select, for publication, such papers as they may elect.

On motion of Dr. Newman, they were instructed to select first from the reports of standing committees.

On motion of Dr. Newman, the thanks of this Society were tendered to the Shawnee County Medical Society for their polite invitation to hold the next annual meeting in Topeka.

The Society then adjourned to meet at 9 o'clock to-morrow morning.

THURSDAY, April 4th.

The Society met as per adjournment, the president, Dr. Logan in the chair.

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The minutes of yesterday were read and approved.

The nominating committee reported the following standing committees for the present year. On motion, the report was received, and adopted, as follows:

Committee on Practical Medicine.—Dr. J. P. Root, of Wyandotte; Dr. J. L. Wever, of Leavenworth; Dr. L. Houston, of Leavenworth.

Committee on Surgery.—Dr. John Parsons, of Mt. Pleasant; Dr. H. S. De Ford, of Ottawa; Dr. A. Potter, of Greeley.

Committee on Obstetrics.—Dr. C. A. Logan, of Leavenworth; Dr. J. L. Prentiss, of Lawrence; Dr. V. V. Adamson, of Holton.

Committee on Zymotic Diseases.—Dr. D. W. Stormont, of Topeka; Dr. M. Bailey, of Topeka; Dr. M. A. Campdoras, of Indianola.

Committee on Malarial Diseases.—Dr. Tiffin Sinks, of Leavenworth; Dr. O. E. French, of Garnett; Dr. E. R. Russell, of Lawrence.

Committee on Venereal Diseases.—Dr. S. B. Davis, of Leavenworth; Dr. N. C. Clark, of Wathena; Dr. M. S. Thomas, of Leavenworth.

Committee on Climatology.—Dr. J. W. Brock, of Leavenworth; Dr. C. C. Shoyer, of Leavenworth; Dr. J. A. Moore, of Emporia.

Committee on Indigenous Remedies.—Dr. V. V. Adamson, of Holton; Dr. H. S. De Ford, of Ottawa; Dr. O. E. French, of Garnett.

Special Committee on Acute Phthisis.—Dr. J. P. Root, of Wyandotte; Dr. D. W. Stormont, of Topeka; Dr. J. W. Brock, of Leavenworth.

On motion of Dr. Sinks, the amendment to the last section of the By-Laws, which was proposed at the last annual meeting, was adopted.

The committee appointed at the last meeting to have a certain amendment made to our charter by the Legislature, reported that they had not discharged that duty. On motion of Dr. Sinks, the name of Dr. J. P. Root was substituted for that of Dr. C. Robinson on the committee. On motion of Dr. Budington, the committee were instructed to secure the pro-

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posed amendment at the next session of the Legislature. The committee, as now constituted, consists of Drs. Root, Bailey and Stormont.

On motion, the special order for this morning was taken up, viz: the report on Obstetrics; which was discussed by Drs. Davis, Brock and Logan.

The following resolutions, offered by Dr. Stormont, were unanimously adopted:

Resolved, That the thanks of this Society be tendered to the retiring president, Dr. C. A. Logan, for the able and impartial manner in which he has discharged his duties during our sessions.

Resolved, That our thanks are hereby tendered to the physicians of Leavenworth, for their courtesy and kindness to us at this meeting.

Resolved, That the thanks of this Society are hereby tendered to the Masonic and Odd Fellows' Associations, for their liberality in granting the use of their Hall for the meetings of this Society.

Dr. Root offered the following preamble and resolution which were adopted:

WHEREAS, The medical profession has ostensibly in charge the lives and health of the people, and whenever, from any cause, pain and disease, or death, are present or apparently approaching, medical aid, consolation and advice are sought by mankind, thereby recognizing the physician as the true index and source of that knowledge and wisdom necessary to alleviate, and, as far as possible, to prevent the diseases, pains and sufferings, and death of mankind, therefore --

Resolved, That it is the high and solemn duty of each medical practitioner to instruct and protect humanity publicly and privately, and especially to become, before the world, perfect patterns of physical and moral purity, and thus by combining precept and example, cause the human race to seek a higher sphere of usefulness and happiness.

On motion of Dr. Wever, it was—

Resolved, That we will endorse and aid any reputable medical journal which may be started in this State.

Dr. Sinks moved that a committee of three be appointed to prepare a draft of a law for the registration of the marriages, births and deaths in this State, and secure its passage by the next Legislature.

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The motion was adopted, and Drs. Logan, Root and Sinks were appointed.

On motion, the Society adjourned to meet in Leavenworth, on the third Wednesday in April, 1868.

MINUTES OF THE ANNUAL MEETING OF THE KANSAS STATE MEDICAL SOCIETY.

[REPORTED BY D. W. STORMONT, M. D., SECRETARY.]

LEAVENWORTH, April 15, 1868.

The Society met in the Odd Fellows Hall, Leavenworth, and was called to order at 10 o'clock, A. M., April 15th, 1868, by the president, Dr. Albert Newman.

The following members were present during the session, viz: Drs. A. Newman, J. L. Prentiss, C. A. Logan, T. Sinks, J. W. Brock, W. E. Turner, D. W. Stormont, C. C. Shoyer, Geo. E. Budington, J. Parsons, S. Houston, M. S. Thomas, A. W. Campbell, L. P. Stiles, W. B. Carpenter, J. J. Crook, J. L. Wever, J. M. Lindley and M. A. Campdoras.

The minutes of the last meeting were read and approved.

On motion, Drs. Budington, Sinks and Turner were appointed a Committee on Unfinished Business.

Dr. Shoyer was appointed to fill a vacancy on the Board of Censors.

Several names were proposed for membership. They were referred to the Board of Censors.

On motion of Dr. Sinks, the Society adjounrned to meet at 2 o'clock, P. M.

AFTERNOON SESSION.

The Society met pursuant to adjournment, the president in the chair.

On motion, the following committees were appointed by the president, viz:

Auditing Committee, consisting of Drs. Shoyer, Parsons and Budington.

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Business Committee, consisting of Drs. Sinks, Parsons and Stormont.

Committee on Publication, consisting of Drs. Sinks, J. L. Prentiss, Carpenter, D. W. Thomas and Stormont.

The Censors submitted a report recommending the following gentlemen for membership, viz:

Drs. J. M. G. Le Carpentier, of Leavenworth; John Wilson, of Easton; D. W. Thomas, of Leavenworth; W. W. Cochrane, of Atchison; Thomas Hamill, of Leavenworth; A. G. Chase, of Easton, and N. T. Winans, of Iola. They were unanimously elected, and those present signed the constitution.

The Committee on Unfinished Business offered the following report, which was adopted, viz:

"Your Committee on Unfinished Business would respectfully state that they find a report due from the Committee on Prize Essays, Dr. Wever, chairman; also a report due from the committee to obtain from the State Legislature certain changes in the charter of the Society, Dr. Root, chairman; also a report from the committee to prepare a draft of a law for the registration of marriages, births and deaths, and secure its passage by the Legislature, Dr. Logan, chairman.

All of which is respectfully submitted.

GEO. E. BUDINGTON,
T. SINKS,
W. E. TURNER, } *Committee.*"

The Committee on Prize Essays submitted the following report, which was adopted, viz:

"The Committee on Prize Essays would most respectfully report, that, owing to the number of essays submitted being so few, and some that were promised and expected, not having been received within the time prescribed, the committee have decided to recommend to the Society, to continue the committee, and extend the time one year, and that the value of the medal be increased to ten dollars.

J. L. WEVER, *Chairman.*"

The resolution now stands as follows:

Resolved, That a medal, of the value of ten dollars, be offered as a prize for the best essay on the endemic diseases of Kansas, the

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contestants to be confined to members of this Society; and that a committee be appointed to examine the essays and adjudge the award, according to the rules customary in such cases; said committee to report at the next meeting.

The committee consists of Drs. Wever, Sinks, Root, Budington and S. B. Prentiss.

The Committee on Amending the Charter reported: "That according to a late decision of the Supreme Court, the Legislature, under the present State Constitution, cannot amend a special charter."

The report was received and the committee discharged.

The Committee on Registration Law reported: "That they prepared a law which was introduced and passed the Senate, but was not reached in the House."

The report was received and the committee continued another year. The committee consists of Drs. Logan, Root and Sinks.

The treasurer submitted his annual report, as follows:

J. L. PRENTISS, Treasurer,

To the Kansas State Medical Society, *Dr.*

To cash on hand, as per last report	$87 00
To cash received, fees and assessments	53 00
	$140 00

Cr.

Paid order of the president for printing transactions last year	$120 00
Paid secretary for expressage, postage and stationary	3 00
	$123 00
Balance on hand	17 00
	$140 00
Due the Society on admission fees	$ 9 00
Due the Society on annual assessments	51 00
Amount due	$60 00

April 15th, 1868. J. L. PRENTISS, *Treasurer.*

The report was received and referred to the Auditing Committee.

Dr. Brock introduced the following resolution:

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Resolved, That Dr. Charles Newman, of Lawrence, be expelled from this Society for unprofessional conduct.

On motion of Dr. Sinks, the resolution and the proofs were referred to a committee consisting of Drs. Logan, Shoyer and Parsons.

The auditing committee offered the following report, which was adopted, viz:

"The auditing committee having examined the treasurer's report, would report that they find the same correct.

C. C. SHOYER,
JOHN PARSONS, } *Committee.*"
GEO. E. BUDINGTON,

Dr. Parsons, from special committee, submitted the following report:

"The committee appointed to inquire into the case of Charles Newman, of Lawrence, have found the charges brought against him correct, and recommend his expulsion from the society.

J. PARSONS,
C. A. LOGAN, } *Committee.*"
C. C. SHOYER,

The report was accepted, and the resolution expelling Charles Newman was unanimously adopted.

Reports of standing committees called for.

Dr. Parsons, chairman, read the report of the committee on surgery, which was discussed and referred to the committee on publication.

Committee on Practical Medicine; no report.

Dr. Budington offered the following resolution, which was adopted, viz:

Resolved, That a prize medal, of the value of ten dollars, be offered for the best specimen of Pathological Anatomy, to be presented at the next meeting of the society; and that the committee on prize essays be appointed to adjudge the award.

On motion, adjourned to meet at 7½ o'clock this evening.

EVENING SESSION.

The society met as per adjournment, and was called to order by the president.

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Reports from standing committees being in order, Dr. Shoyer read the report from the committe on climatology. Referred to the committee on publication.

Committee on zymotic diseases; no report.

Committee on venerial diseases; no report.

Dr. Prentiss read the report from the committee on obstetrics. Referred to the committee on publication.

Committee on indigenious remedies; no report.

Dr. Campdoras reported a case of ovarian cyst, and exhibited specimens of concretions discharged from it. Referred to the committee on publication.

The business committee submitted their report, which was laid on the table until to-morrow morning.

On motion, the society adjourned until 9 o'clock to-morrow morning.

THURSDAY, April 16, 1868.

The society met according to adjournment, and was called to order by the president.

Dr. Brock read a paper on diarrhœa, which was referred to the committee on publication.

Dr. Sinks read the report from the committee on malarial diseases. Referred to the committee on publication.

The president then delivered his validictory address. Referred to the committee on publication.

Mr. S. A. Marshall exhibited to the society artificial limbs of a superior quality, manufactured at his "National Leg and Arm Factory," recently established in Leavenworth.

Mr. R. J. Brown had on exhibition some fine samples of pharmaceutical preparations of his own manufacture.

The report of the business committee was taken up and adopted, and the officers elected, as follows:

Time and place of holding meeting, Topeka, Kansas, second Wednesday in May.

OFFICERS.

President—Dr. John Parsons.

Vice-Presidents—Drs. M. Bailey and M. S. Thomas.

Secretary—Dr. D. W. Stormont.

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Treasurer—Dr. J. L. Prentiss.

Librarian—Dr. V. V. Adamson.

Censors—Drs. C. A. Logan, A. Newman, J. M. Linley, M. A. Campdoras, J. W. Brock, J. P. Root, J. Robinson, De Ford and E. Kennedy.

STANDING COMMITTEES.

Malarial Diseases—Dr. W. E. Turner.

Diseases of Respiratory Organs—Dr. C. C. Shoyer.

Dysentery—Dr. S. Houston.

Fractures—Dr. M. S. Thomas.

Venerial Diseases—Dr. M. Bailey.

Erysepilas—Dr. D. W. Thomas.

Diseases of the Eye—Dr. T. Sinks.

Gynecology—Dr. C. A. Logan.

Obstetrics—Dr. J. M. Lindley.

Infantile Diseases—Dr. D. W. Stormont.

Zymotic Diseases—Dr. J. W. Brock.

Contagious Poisons—Dr. A. Newman.

Plastic Operations—Dr. J. L. Prentiss.

Climatology—Dr. W. B. Carpenter.

Indigenous Remedies—Drs. V. V. Adamson and J. J. Crook.

Rheumatism—Drs. R. Morris and E. R. Russell.

Dr. Stormont offered the following resolution:

Resolved, That a committee of three be appointed to revise the Constitution and By-Laws of this Society, and report at the next annual meeting.

Adopted, and Drs. Stormont, Bailey and Brown appointed.

Drs. Logan, Lindley and Newman were elected delegates to the American Medical Association.

Dr. Stormont moved that the Committee on Publication be instructed to contract with the publishers of the *Medical Herald* to have the transactions of this meeting printed in that journal, and to one hundred extra copies of the transactions struck off and bound separately. Adopted.

Dr. Stiles offered the following resolution, which was unanimously adopted, viz:

Resolved, That this society heartily endorses the Leavenworth *Medical Herald*, and that each member is respectfully requested to aid in its support and in extending its circulation.

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Dr. Parsons offered the following resolution, which was unanimously adopted, viz:

Resolved, That the thanks of this society are hereby tendered to the Odd Fellows Association, for the liberality in granting the use of their magnificent hall for the meeting of this society.

On motion, the Society adjounrned to meet in Topeka, on the second Wednesday in May, 1869.

ADDRESS BEFORE THE STATE MEDICAL SOCIETY.

BY ALBERT NEWMAN, M. D., PRESIDENT.

Gentlemen of the Kansas State Medical Society:

At every great way-mark in the journey of our professional life, of which the annual meetings of our Society are to us perhaps the most important, we may well pause and review the past, that we may regain new courage and strength from the contemplation of our achievements and successes, and be led to exercise a greater caution in view of our mistakes and our errors. And, as from the stand-point of the present, we take a retrospective view of the progress and advancement of our noble art; if its gradual but constantly progressing disenthrallment from the shackles of erroneous hypothesis, in which the too hasty and incautious generalizations of the past had bound it; and of its continued and progressive upbuilding upon the broad and sure foundations of demonstrated and incontrovertible facts, I congratulate you that we find so much cause for hope and satisfaction. The prospects of medical science were never brighter than to-day. Indeed, in view of the achievements of the last few years, it is not too much to say, that no problem in the science of life should hereafter be so intricate, that intelligent and preserving research may not solve it. We may, especially to-day, congratulate each other upon the probable and near solution of at least one difficult and most important problem, which has

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hitherto baffled all our skill and labor. Four times within fifty years have we seen an epidemic over which our art had little control, start from its native haunts in India, and apparently gathering strength as it pursued its westward march, pause not in its work of death, till it had encircled the world. During these fifty years we have seen this epidemic alone, in spite of all our efforts, sweep into the grave nearly or quite 50,000,000 of human beings. So anomolous has been its course, and so rapid or destructive its effects, that the nature of its course, and the modes of its propagation, have, until recently, successfully eluded discovery. We have seen the disease in its westward march, embrace a territory of over 60° of latitude. We have seen it spread with winds and against winds; over mountains and oceans; scarcely less destructive amid the rigors of a Moscow winter than under the burning heat of a tropical summer. In short, in its erratic and mysterious course, it has violated all our preconceived notions of propriety and regularity, and refused to be governed by any laws we sought to prescribe for it. Surely, if the science of medicine had no other claim to our confidence and respect, than that it had by careful observation and laborious research, sought out and elucidated the habits and the favorite haunts of this foe to human life, and shown us how it may be met and its destructive consequences averted, this alone ought to awaken our warmest enthusiasm and quicken our faith in the final accomplishment of its high and holy destiny.

In the discharge of the duties assigned to the high position with which you have been pleased to honor me, I propose, as we close the deliberations and discussions of this pleasant, and I trust, profitable reunion, to ask your attention to a brief consideration of some of the mutual relations and obligations of physicians and society.

The aim of medicine is two fold; 1st, the prevention of disease; 2d, its cure.

It is undoubtedly true that the attentions and efforts of our profession have been far too exclusively directed to the solution of problems connected with the second named object; and that the great and overshadowing importance of the first has not always been sufficiently recognized. It is indeed practically

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true, that under ordinary circumstances the physician has few opportunities for the practical application of his science to the prevention of disease. It is seldom till the penalty for the violation of Nature's laws is being inflicted, that the skill of the physician is sought, or his profered advice listened to. If, therefore, the profession has been too remiss in studying how disease may be prevented, and too exclusively absorbed in studying how it may be cured, one excuse and one justification are found in the fact, that under ordinary circumstances, we have so little opportunity for the application of our knowledge in this direction. Now, whoever is justly responsible for this condition of things, its unavoidable tendency has been to distract the attention of the practitioner from those fundamental and essential conditions of health, the violation of which has produced the disease, and to lead to a too exclusive reliance upon drugs. It is to be feared that in the treatment of disease, due importance has not always been given to the fundamental fact that healthy life everywhere requires a proper supply of all essential factors of life; that no drug can supply to the system the place of proper nutriment, pure air and warmth; and that all of these are absolutely essential to the manifestation of life, not less in the lowest plant than in the highest animal. A recurrence to these first principles of life, is, therefore, scarcely less important in the treatment of many diseases, than in their prevention. And, to my mind, one of the most gratifying evidences of true progress in our art, is the growing tendency in the profession to give greater prominence to hygienic means, and less to drugs in the treatment of disease. I would by no means wish to be understood as decrying the efficacy of drugs in the treatment of disease; but it is irrational and mischievous to suppose that any drug, however useful under certain circumstances, can supply to the system the place of proper nutriment, pure air, or any other indispensible factor of life. The first point, both in the treatment and prevention of disease, is a sufficient supply of all the essential factors of life in a state of purity. As auxiliary to these, the aid of drugs may be invoked to eliminate or neutralize poison, or to remove pathological conditions of essential organs, or for the accomplishment of any other rational or

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definite object. It is true that the practical physician has few occasions to recur to those principles except in the treatment of disease; that he has little control over the social habits of society, till disease warns them to seek his advice. But notwithstanding this, the physician should be duly impressed with the fact, that under all circumstances, it is absolutely essential to the preservation of health, that the body be constantly furnished with nutriment, sufficient both as respects its total amonnt and the proximate principles of which it is composed: with a sufficient amount of pure air. And that the temperature of the body be maintained at or near its normal standard; and that all these conditions are alike essential, both in the prevention and cure of disease. The cure of disease, therefore, involves two problems, namely: 1st. To supply the system with proper kinds and amount of nutriment, with sufficient pure and constantly renewed air; and with heat sufficient to maintain the normal temperature of the body. 2d. By the administration of drugs, or by other therapeutical means to remove any pathological condition either of organ or function which may be present, and thereby restore all the vital actions to their normal condition of vigor and harmony.

The prevention of disease involves also two problems, one of which relates to the destruction, neutralization, or avoidance of all positive causes of disease, while the other is the same as the first named in the cure of disease, and relates to the supply of nutriment, oxygen and heat, which are everywhere indispensible to the occurrence of any vital actions. The means therefore by which the two great objects of medical science are to be accomplished, naturally resolve themselves into three classes, namely: 1st. Those which relate to the supply of the essential factors of life, and which are therefore always indispensible, as well in the cure as in the prevention of disease, and which become sources of disease only when supplied in excess or deficiency, or in a state of impurity. 2d. These which relate to the destruction, neutralization or avoidance of all poisons of whatever nature, and which are harmful, not by reason of excess or deficiency, but by reason of the nature of their influence upon the vital actions; and which

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are therefore harmful under all circumstances, and in the smallest quantity. The third relates to such therapeutical means as are calculated to removed or paliate the effects of an imperfect supply of the first, or of a reckless or unavoidable exposure to the second. Here then are three distinct fields of labor, in each of which we have earnest and efficient workers laboring, not for pecuniary reward; not for the personal fame or agrandizement; but for the elucidation of truth which they love; for the relief of suffering and disease which they appreciate and regret; and for the elevation and welfare of their race. It is indispensible to a correct estimation of the true relations which exist between the physician and society, that he should be recognized as a laborer in all these fields. The relation of physician to society is not simply that of a therapeutist; of one who holds his knowledge and skill in the treatment of disease for sale to those who need it at a price. If it was so, the relations of the physician to society would not differ essentially from those of the lawyer, or the merchant, or other profession or trade, who supply society for an equivalent, either with useful articles, labor or skill. There is, however, this difference, even if we consider the physician only in the light of a therapeutist. The merchant, the mechanic, and the lawyer, before parting with their ware or bestowing the benefits of their knowledge or skill, ordinarily demand an equivalent, or at least an assurance, that reasonable compensation shall be promptly forthcoming. Again, they offer to society nothing which involves, on their part, any sacrifice or exposure, the value of which cannot be estimated in dollars and cents, and which is not included in the price demanded. With the physician the case is different. He does not demand his fee in advance; nor does he, as a general rule, receive his pay when his attendance is finished. He alone, of all the servants of society, is expected to wait, often months or years, or until it is entirely convenient to cancel the obligation; and for a considerable portion of his services he must never expect any compensation whatever. This is, to a considerable extent, incident to the nature of our profession, and must be submitted to as unavoidable; and to the worthy poor such services are, according to my observations, generally rendered cheer-

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fully and faithfully. It is not simply a tithe of their income which a physician thus contributes to the poor, but often a fourth, or even a third. No other class of men contribute so much of their time and means for the support of the poor without expectation of any return. Often, also, the physician is called upon to risk health and life in the discharge of his duties. When the pestilence that "walketh by noon," is abroad in the land, though worn by care and watching and overwork, the physician must not desert his post. He must go wherever called, and, without hope of extra fee or reward, do what he can to stay or avert its ravages. Thousands have thus nobly perished at the post of duty, striving to ward off disease and death from others. The relations of physicians to society, therefore, as therapeutists, simply are in these respects unlike those of other professions or trades. But the difference becomes vastly increased when we look upon the whole office of the physician. As a therapeutist, he receives from society, to some extent, remuneration for his services and their obligations to him are, to this extent, cancelled. But for all the patient toil spent in the elucidation of the causes of disease, and of the means by which the effects of these causes may be prevented, what is the physician's reward? Who will estimate the toil and research by which the principles and maxims of sanitary science, as it exists to-day, have been elucidated and substantiated? The large amount of certain knowledge we now possess respecting the kinds and amount of nutriment required for the maintenance of healthy life; the mischievous effects of impure or insufficiently renewed air; of overwork and insufficient clothing, has been obtained only by long, patient and unrequited toil and research; toil and research too, which have involved self-denial and suffering, and often the sacrifice of health and sometimes even of life. The harmfulness of indigestible food, or of food unsuited to the condition and powers of the digestive organs, has long been recognized, and to these positive effects of improper diet the attention of the profession has been far too exclusively directed, so that we are but just beginning to realize the influence of deficiency of certain elements of diet in the causation of disease. And in respect to all the other essential factors of life, their great im-

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portance and the harmful consequences of even a partial deprivation of them have been rendered more and more certain and evident by careful observations of the numerous and constantly recurring instances which man's ignorance and recklessness have so abundantly furnished us. Recent research has, perhaps, developed the importance of no branch of hygiene more than that which relates to nutrition; and this problem is by no means yet satisfactorily solved. But our knowledge of the subject is constantly increasing, and the application of this knowledge to the treatment as well as prevention of disease, is becoming, day by day, more rational and more satisfactory.

But it is in the study of the positive causes of diseases, that the greatest labors have been expended and the largest sacrifices made. The study of the causes of epidemics alone has consumed years of research and toil by some of the best minds in the profession; and such labors will ever deserve the lasting gratitude of society. By the study of the causes of disease, and the practical application of the knowledge thus acquired, human life has already been considerably prolonged. Marc d' Espine, a celebrated authority, shows that in Geneva, from the year 1500 to the year 1600, the probable length of life was five years; it is now forty-five years. In London, the mortality in 1700 was one in twenty-five; it is now one in forty-five. In our own cities, with exception of New York, the diminution of mortality has been steadily progressing, as the conditions of health and the causes of disease have been more and more elucidated. These gratifying results have been brought about by the researches and labors of the medical profession; and it is, to say the least, exceedingly ungrateful in society not to recognize our labors in this direction, or appreciate the benefits derived from them. These benefits are by no means measured by the diminution of mortality effected, great as this is. The same preventive measures which have diminished mortality, have correspondingly diminished disease with its attendant consequences—suffering, poverty, ignorance and crime. Who will undertake to estimate the influence of the sanitary discoveries of the present century in the increase of health, and, consequently, of productive power,

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wealth, knowledge and virtue. In this field there remains much for us yet to do. There is good reason to believe that the causes which produce at least one-half of all the diseases from which we now suffer, are subject to man's control; and with the co-operation of society in the application of the truths and principles which the laborers in this field will elucidate, we may confidently predict that the future will witness a diminution in the ratio of disease and death, still more marked and important than the past. There is great reason to hope that when all the observations made during the last epidemic of cholera, shall have been carefully prepared and analyzed, the nature and mode of propagation of the cholera poison will be so clearly demonstrated, that henceforth complete immunity from this terrible pestilence will be placed within our power; and, if I mistake not, the solution of this problem will greatly aid us in solving like problems in relation to other epidemics and other diseases. It is in the prevention of disease rather than in its cure, that philanthropist and the christian will find their largest inducements to labor, and their surest prospects of reward, not in wealth or fame, but in the consciousness of having conferred lasting and inestimable blessings upon mankind.

The relation of the physician to society then, is not of a therapeutist alone, but that also of a conservator of the public health; and for all his labors in the discharge of the duties involved in the last named relation, he neither asks nor receives from society any direct remuneration whatever. Here, and in therapeutics also, all his discoveries, all the results of his patient, laborious and long continued research, are at once published throughout the world, and become the common property of the profession, to be used in the alleviation or prevention of human suffering to the fartherest limits of civilization. His discoveries and achievements are locked up and limited in their dissemination by no *patents* by which society is indirectly taxed for his pecuniary remuneration, as is done in every other art. In all his study of the causation of disease, the physician has in view chiefly the welfare of society and the advancement of his art. And it is in the satisfaction of feeling that he has succeeded in the accomplishment of these objects

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that he reaps his richest reward. For the fullest accomplishment of these purposes therefore, he seeks to spread as widely and as rapidly as possible, the results of his labors and researches. I speak only of the *true physician*, for no other can justly claim to represent the profession. I am aware that there are those who bear the name of physician, and who have even filled honorable positions in our profession, who have flagrantly violated this rule, by the manufacture and sale of secret remedies, and by other acts unworthy the physician and the man. But though *with* us, these are not *of* us; they are the Judas' of the profession of which they are unworthy members, and to trifle with, and jeopardise human life, with no higher object than the promotion of their own pecuniary interest. We have lately had an example of one who had once filled the honorable position of Surgeon General of the United States Army, securing a patent for an improved conveyance for sick and wounded soldiers. But his conduct has received the unqualified condemnation of the profession, and his invention bids fair to sink into that oblivion which this act alone should insure for it. But in all other arts, discoverers and inventors, having in view chiefly their own aggrandizement, and only secondarily and indirectly the welfare of society, naturally and consistently seek, by patent or otherwise to secure from all who avail themselves of the benefits of their discoveries or inventions, reasonable remuneration for the time, labor and money they have expended in perfecting them. Were I required to define the true physician in such a way as to distinguish him from all other species of the genus "doctor," my definition would be simply this:—one whose chief aim is the elevation of the science, and the perfection of the art of medicine, and the alleviation and prevention of disease, with all its attendant train of frightful concomitants. He whose professional life does not approach this standard, whether he sails under the flag of a regular diploma, or under the flaunting colors of homœopath, hydropath or eclectic, lacks the essential attributes of a true physician, and is at best a charlatan and a hyprocrite — an excresence upon the professional body, and a parasite upon the body politic — who sees in the sufferings of others only the opportunity for his own selfish and pecuni-

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ary advancement, and who supplies society with nothing for which he does not demand and receive a full equivalent—often more. Much of the true physician's time, upon the contrary, is spent in the study of the causes of disease, and the best means for their prevention; subjects which directly affect the dearest interests of society, but for which society makes him no recompense. We may say more; society is entirely dependent upon the medical profession for the knowledge necessary to a rational application of measures for the prevention of disease. It is chiefly to the labors of our profession that the average duration of human life has been increased in the past, and it is to the same source that society must look for its farther increase in the future. The history of the past clearly shows that to look elsewhere will be to look in vain. That, however many competitors we may have in the field of therapeutics, in the great work of preventing disease and prolonging human life, we have none whatever. The relations of the physician to society, then, are not simply those of a therapeutist, who, for services rendered in the treatment of disease, demands and receives an equivalent, but those also of sole conservators of the public health, charged with the high and responsible duties of guarding society from the ravages of disease and pestilence—of prolonging human life and rescuing it from the thraldom of disease. The relations of society to the medical profession, upon the other hand, in the last named respect, are those of complete dependence. The services which the physician renders society in this direction, and the value of which is beyond estimation, can be obtained from no other source. These services, moreover, are gratuitously rendered; society does not and cannot make any adequate return for them. Growing out of these relations are certain obligations and responsibilities both upon the part of the physician and society.

As a member of a noble profession, purely philanthropic and unselfish in its aims, the physician must let no considerations of self-interest deter him from the most full and conscientious discharge of all his professional duties. Ever jealous of the honor and dignity of his profession, he must see to it, that he does nothing unworthy of so high and holy a calling.

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In short, he owes it to the profession which he has entered, to show himself in all things a man. As a therapeutist, his responsibilities and obligations to society are almost fearfully great. Into his keeping is submitted the life of parent and child, husband and wife, brother and sister. Shall the tender ties which these relations indicate be severed by death? Of this question the physician is often sole arbiter. And who shall estimate all the consequences which hang upon the decision of this question? The agony of death; the anguish of wounded and desolate hearts; these are not all, nor are they the most important of these consequences. It is seldom that one man stands or falls alone. And not infrequently the cutting off of one life changes the destiny of many. It becomes the physician, therefore, to watch with anxious care, that no act of commission or of omission on his part, a single life be lost which it is the power of his art to save. To avail himself of every possible means to perfect himself in the art of reading and interpreting the language of disease, and to inform himself of the most improved and efficient methods of treatment. If he realizes the responsibilities of his position he will not dare to tamper with disease till he has acquainted himself as far as possible with all that is known respecting its nature and treatment. As conservators of the public health, every physician should feel himself responsible to society, to the extent of his abilities and opportunities, for the prevention of disease. He should, therefore, acquaint himself as far as possible, with such causes of disease as are most under man's control, and especially with the causes of such epidemics as are most destructive to human life, that he may be able to give intelligent and rational direction to efforts, either for arresting an epidemic already present, or for averting its threatened visitation. Nor should we by any special pleading beguile ourselves with the idea that in this great work *we* have nothing to do. On the contrary, we should each feel our individual responsibility to society for the prompt introduction and application of preventive measures, till the sum total of disease and death is reduced to its absolute minimum. But if the obligations of the physician to society are so momentous, there are surely some things on the part of society

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which it is our right to expect, and our duty to demand. A profession from whose unselfish and unpaid labors, society has derived such inestimable benefits; and to which alone society must still look for further release and protection from the vast amount of unnecessary disease which is filling thousands of premature graves, and everywhere crippling and destroying productive industry, is certainly entitled to some return. I will not say now that it is the duty of society to look exclusively to the regular profession for all required therapeutical services, although such a proposition would, I think, be entirely reasonable and logical. But so long as the mass of mankind are so entirely uninformed as at present upon all of the subjects connected with our science and our art, and so long as the popular ideas respecting the nature of disease, and the mode of operation of remedies are so crude and superstitious as at present, it is not surprising that the simple and the ignorant often become the dupes of charlatans and pretenders. Such are entitled to our commiseration and our sympathy, rather than our censure. But the patients of charlatany are by no means confined to the uneducated and the ignorant. It is a sad commentary upon the consistency and rationality of mankind, that so many men of intelligence and learning; men, often, whose pursuits or vocations are such as naturally tend to cultivate and induce habits of careful observation, and close reasoning, become firm believers and enthusiastic defenders and propagators of fanciful and absurd systems of therapeutics from the fundamental doctrines of which all reason and common sense have been carefully sifted out. We may well be surprised when the lawyer, who above all other men except the physician, ought fully to understand and appreciate the laws of evidence, becomes a convert to and an advocate of the absurd doctrine of *similia similibus curanter*. And we who are not lawyers, may well ask ourselves if the maxims and principles of law rest upon the same kind of evidence as this fanciful creation of an irrational theorist. Nor is it less a cause of surprise and regret that the other learned profession, the fullest comprehension and most perfect application of the sublime truths of which certainly demand clearness of intellect as well as pureness of heart, should furnish so many advocates and upholders

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of quackery in all its forms. Such men, whatever their profession, merit only censure and condemnation; they recklessly or willfully ignore or disregard the obligations they owe to society and to truth, and contribute their influence to the deception and lasting injury of their fellow men. In all this, society is more deeply wronged than the physician; and this in a two-fold way. No species of quackery or partial system of medical practice ever yet relied upon its own merits for success; but one of the most important means upon which they all, in common, depend to win their way to the popular heart is by decrying and caricaturing the science of medicine, well knowing that so far as they can palm off their caricature as the true representation of medical science, their end is ensured. Thus the popular mind is filled with singularly erroneous and unjust notions respecting both the operation of remedies and the principles upon which they are administered; and confidence in the medical profession is either weakened or wholly destroyed. Now, without calling in question the right of any member of society to patronize quackery to the fullest extent to which his inclinations lead him, I do assert that no intelligent member of society has any right, directly or indirectly, to slander or caricature the medical profession. As a profession, we have just cause to complain, that sometimes our claims to the confidence and gratitude of society are so far forgotten or overlooked by those from whom we have a right to expect better things, that we are slandered and misrepresented for the sole purpose of building up some special system of quackery or some favorite and boastful pretender. Not long since, in one of the daily papers of Lawrence, (Lawrence *Republican*, T. Dwight Thacher, editor,) appeared the following modest local:

A SURGICAL TRIUMPH.—We were shown yesterday an example of what is now called "conservative" surgery. One of the engineers employed by the Union Pacific Railway Company, had his left hand severely crushed in coupling cars last October. Many surgeons would have unhesitatingly amputated it at the wrist. Dr. Wilder, of this city, however, took charge of the case, exsected the crushed bones of the hand, and succeeded in saving the third and fourth fingers in good condition, so that the man can still manage his engine, and have considerable use of his hand.

I called upon the editor and directed his attention to what I considered an unjust and uncalled for aspersion upon the medi-

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cal profession. I endeavored to show him that he was not sufficiently conversant with the principles of medicine to speak with any such positiveness as to what "many surgeons" would do under any circumstances, and that particularly in this case, as he did not see it after the injury and before the operation, but only after several months had elapsed, it was impossible for him to know that "many surgeons" would not have saved three fingers instead of two. In the course of our conversation the editor stated that the reason for his using the language to which I objected, was that the doctor used a similar but stronger expression in explaining the case to him; that the doctor's language was, "that nearly every surgeon would have unhesitatingly amputated at the wrist." A statement which certainly showed a very modest appreciation of his own skill, if not a very thorough knowledge of the general practice of surgeons. After a full discussion of the subject, the editor refused to admit that his language was in any respect unjust, and asserted in the most positive manner that he believed the statement was entirely true. I candidly confessed to him my great surprise at finding him so utterly incapable of appreciating the true relation which, as a journalist, he bore to the medical profession. Certainly, if such men are not only careless of, but incapable of appreciating their obligations to us, we ought not to be surprised that others, with less opportunities for knowledge, should sometimes misrepresent and wrong us. It is well for society that the objects and aims of medical science, place it entirely above and beyond the reach of these influences; that they can not in the least retard its progress or delay the perfect accomplishment of its destiny. And from this fact we may derive an important practical lesson, namely: that it is not necessary for us to turn aside from the great work in which we are engaged, either to combat opposing theories or to vindicate our profession from the foul aspersions and slanders of our enemies. The great work in which we are engaged demands all our time and all our energies. Let us see to it that we do not allow ourselves to be diverted from the real objects of our pursuit to waste our time and energies in combatting senseless theories, which, left alone, will soonest reach the oblivion to which they are inevitably destined. Let

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us remember that the aim of the true physician is not the accumulation of wealth, or personal fame or aggrandizement, but the advancement of his science, the perfection of his art, and the emancipation of mankind from the bondage of disease; that he alone is the sole conservator of the public health, and that he alone is charged with the responsible and elevating duty of rescuing his race from the disease and death incurred by their own ignorance and recklessness. This duty and this responsibility is ours. We cannot go forth into life without taking upon ourselves all of life's duties and responsibilities. We may ignore or disregard them, but they rest upon us nevertheless, and we shall justly be called to render account for the manner in which we have improved the talents and opportunities which have been intrusted to us. No man can safely allow himself in any pursuit to be governed by self-interest alone. If we would not dwarf and cripple the highest and noblest elements of our being, we must seek to be governed by higher and nobler incentives. And what higher incentive to action than the consciousness that its object and its tendency are to prolong human life and rescue it from the thraldom of disease and suffering; to increase its pleasures and diminish its pains; to stay in its course the death-scattering pestilence, and to cause that health and joyousness and thanksgiving shall prevail where otherwise would be death, disease and misery. Can we ask or seek a higher field or nobler work than this? Let us study to obtain higher and clearer views of the noble aims of our profession, that we may thereby be led to a more perfect consecration of all our energies to the great and ennobling work in which we are engaged.

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REPORT OF THE COMMITTEE ON SURGERY TO THE KANSAS STATE MEDICAL SOCIETY.

BY JOHN PARSONS, M. D.

Surgery, during the past year, has not advanced with any great stride, and for all that is new we must refer you to the surgical literature of the day; and, although by repetition, we might interest some, yet we would waste valuable time and delay more important medical matters; therefore, our points will be few.

Water dressing in the treatment of incised wounds generally, but particularly of fresh stumps, after amputation, is positively injurious. We have used it because recommended by distinguished authority, yet feel confident in making the assertion, that thousands of patients are to-day peopling the cities of the dead, victims to such pernicious treatment. For instance: a man receives an injury necessitating amputation, which, being performed, he is placed in bed, the stump covered with wet cloths, and the nurse directed, "wet often and keep it cool." Soon the stump is destroyed; the heating process is superceded and the flaps slough. Still the cause remains; water is constantly applied; sloughing continues; bone protrudes; and yet water is applied. Soon he must undergo a second amputation, and again water is applied with the same fearful result, and unless the patient has remarkable reparative power, the grave receives a victim to ignorance.

Incised wounds, after hemmorrhage has ceased, are to be neatly approximated, and left to nature. The idea has prevailed, and is taught in "the books," that healthy flaps must always be procured to cover an amputated extremity. This is mere theory. We have repeatedly known stumps to heal by granulation after nearly all flaps had sloughed. Healthy flaps are not absolutely required, so the bone is healthy and is covered with periosteum, and does not project too far beyond the end of the stump. Flaps may be pulled down to cover the stump with long strips of adhesive plaster, applied to the sides of the stump, as in extension of fracture. This

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method, first used by my friend, Dr. A. S. Barnes, of St. Louis, Mo., has often proved of great value, furnishing covering without resort to re-amputation.

Several cases of injury to, and inflammation of, knee joint have been treated in the inflamatory stage with cold water, and opened and poulticed so soon as puss had formed. Two of these patients recovered with perfect use of the joint, much to our surprise. "The books" teach that these cases terminate in death, or anchylosis; and although these lesions are very apt to terminate unfavorably, yet we cannot but believe that the danger has been greatly over-estimated, and no surgeon who carefully uses passive motion during recovery, should promise his patient a stiff knee. If the joint is opened as soon as pus has formed, a good result may be expected.

Fractures of the leg and thigh are best treated in a swinging splint, extension by adhesive straps, pulley and weight, and counter extension. The weight of the body, or if necessary, the perineal band may be applied. The splint may be raised or lowered at pleasure. It should be well padded. The limb is kept in place by a long bag of sand on either side. These may be removed at any time and the limb inspected. With this apparatus distortion and shortening can be avoided, for the limb can be measured, and any displacement corrected without disturbing the patient, or moving the limb from the splint. Simplicity and effectiveness are here combined.

REPORT OF THE COMMITTEE ON OBSTETRICS TO THE KANSAS STATE MEDICAL SOCIETY.

BY J. L. PRENTISS, M. D.

"Meddlesome midwifery is always bad." This is an axiom familiar to all, and, in fact, as a general rule, is applicable not alone to the parturient chamber, but in the scientific researches of medicine and surgery as well; the profession in coming to know that nature is after the greatest physician,

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and we, as the instruments of nature's God, can only assist in the practice of the healing art.

When we refer to the standard authors of ancient and even more modern times, and review the heroic treatment of disease by the almost universal practice of venesection, emesis, catharsis, and general depletion with innumerable drugs in almost incredible quantities, we cannot wonder that the infinitesimal practice of "*similia similibus*," has made such rapid strides, even among men of sense, who compare statistics and reason from results. Scientific research and practical application, however, are fast taking place of the old routine, and as men and brothers, in a profession second to that whose mission is the healing of our spiritual maladies, it becomes our duty to scrutinize closely the practice of our predecessors, profiting as far as may be by their experience, and learning wisdom from their folly. It is not our province, however, to enter upon a general criticism, but as your Committee on Obstetrics, we will return to our text and ask your attention for a short time, while we make reference to its merits and demerits. "Meddlesome midwifery is always bad."

It is not our purpose in presenting this quotation to pass judgment "*pro or con*," but have taken it rather as a standpoint, from which to view the duties and responsibilities of the obstetrician during hours of peril both to mother and child. We do not hesitate, however, to express the opinion, that this axiom has often been taken as an opiate to soothe anxious forebodings and benumb accountability for disaster, which might have been averted by vigilance and appropriate assistance.

To illustrate this, we call to mind a case which came under our observation a few months since, in which a lady had been in labor forty-eight hours, under the faithful watch-care of an M. D. who regarded nature as entirely competent for every emergency, and was literally of the opinion that "meddlesome midwifery was bad." On being questioned with reference to the position of the fœtus, he stated that it was a face presentation. By making an examination, however, it was ascertained that the os uteri was only dilated to about the size of a half dollar; the membranes were still intact, and to

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use a figurative expression, the fœtus was floating in an ocean of liquor amnii.

The pains for the last twenty-four hours had been almost excruciating, but still not the least advancement was made in labor. What was the simple trouble? The uterus had become so enormously distended by the amniotic fluid as to entirely overcome its power of contractility. The indications were of course to meddle with the membranes and allow the escape of the distending liquid, and the result was, that after an ordinary labor of one hour the child was delivered—the breech instead of the face presentation.

If nature were so perfect in the mechanism of labor that everything must needs be right, then would the services of nature's assistants no longer be required. The experience of the past has indelibly established the fact, however, that child-bearing is fraught with difficulties innumerable, many of which require the most skillful management to be prevented or overcome.

Prophylactics are always preferable to the most certain specifics, and therefore it becomes the duty of the obstetrician to always be on his guard; scrutinizing closely every symptom and make a positive diagnosis of the presentation and position as early in the labor as possible. In fact, the successful accoucher must be sanguine in his prognosis, cheerful in his deportment, and untiring in his attentions. A recent case illustrates the necessity of close attention. About ten o'clock in the evening we were called to attend a primipara about seventeen years of age. The labor proved quite tedious, and it was not until the following day at noon that the os had become fully dilated, and the head (right occipito anterior position) had engaged in the superior strait. The pains and progress were slow but regular. We were seated by the patient and had been giving the case very close attention. As progress had been so slow and the perineum and vulva seemed quite rigid, we did not anticipate immediate delivery, and being quite fatigued from loss of rest, relaxed our vigilance for only a moment, when our patient quietly remarked it was coming. Supposing she meant another pain, we resumed our position, and, to our great surprise, found the head born.

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After delivery we also found quite an extensive laceration. The question in point is this: Could the laceration have been prevented by closer vigilance? Though most of the obstetric authors recommend a support of the perineum, while the head is passing against the floor of the pelvis, we very distinctly remember the opinion expressed by Professor Taylor, of Bellevue, "that support of the perineum was unnecessary, and that as many lacerations occur in the practice of those who support the perineum, as those who do not." This may be regarded, however, as simply an assertion unsubstantiated by statistics. The direction from which the expulsive force is applied, and the great resistence necessary to throw the presenting part forward under the pubis, should admonish us to give support. Could some means be instituted to prevent laceration of the perineum, a great blessing would be conferred. Let us reason together a little with reference to this by no means unfrequent calamity.

The perineum or floor of the pelvis sustains the viscera of the pelvic and abdominal cavities. It is therefore of the first importance that it should remain intact. Not a few of the uterine displacements which we are called upon to treat, date their origin to a previous confinement in which there was laceration of the perineum or walls of the vagina. A great majority of these lacerations occur in the primipara. How may this accident be prevented? The theory which are about to offer may not be universally practicable in its application, but as it occurred to us in the management of the case above mentioned, we thought best to present it for your consideration.

It is a well-known fact, as a rule, that as the fœtus descends into the pelvis, the pains become more active, and the uterus contracts with more force. This increase of power is due partly to reflex nervous action produced by the distention of the vagina and vulva, and is partly on account of the muscular fibers of the uterus becoming shorter as its contents are expelled. By reason of this increased action, the presenting part is forced with great power against the perineum, producing one of the following results:

1st. The tissues, if dilatable, yield to the pressure and all is

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well; or, 2d, the tissues, if unyielding, prevent further progress until surgical aid is rendered; or, 3d, the tissues, if inelastic, yield often times by laceration. The prognosis of laceration is generally rendered almost positive by the circumstances of the patient and condition of the parts.

We are well aware that the following suggestion will be met by the argument, that the bag of waters, formed by the membranes and their contents, is the best dilator, and we will grant it; but, as is the fact in a large majority of cases, the liquor amnii escapes before the vertex reaches the floor of the pelvis. (We say vertex, because head presentations are most likely to produce laceration). The most efficient dilator having ruptured, we do not consider the head the next best, but would suggest that a large sized Barnes' dilator be introduced within the vagina so as to partly protude through the vulva, and that this be distended by the injection of tepid water to the full size of the fœtal head, and thus prepare the way for the egress of the unyielding vertex. Although we have not tested this by practical demonstration sufficiently to establish its merit we are under the impression that if this measure could be adopted in all cases where laceration might be anticipated, that the frequency of this perplexing accident might be greatly diminished.

It may appear to some that we are placing undue stress in this report upon an unimportant and minor point in the mechanism of parturition. But when we know the great fear and dread that every woman has of being torn, (as is the common expression,) and are aware of the evil results which often follow the accident, or consider the fearful magnitude when the laceration extends into the rectum or anus, ofttimes rendering the sufferer's condition, not only disgusting to herself, but disagreeable to her friends, we are impressed with a conviction that it becomes our duty as benefactors of the race to put our wits to work in order that this evil may be overcome.

It is our opinion that the frequency of this accident is not fully appreciated. There are but few men in our profession who are willing to publish their blunders or allow their unfortunate cases to come to light, and in this connection we will state that unfortunate cases are oftentimes the most instructive,

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and as a general rule, the medical man who given his experience, both good and *bad*, is not the least respected by the profession.

As many of you are doubtless acquainted, by reputation at least, with the renowned and universally esteemed, Professor of Surgery, Frank Hamilton, we will refer to him as a model of honesty. During our attendance upon the clinics at Bellevue Hospital, we often noticed that he took particular pains to refer to and exhibit cases of surgical operations that had terminated unfavorably, many of which proved very instructive. This course, instead of calling down censure, won the confidence and admiration of the class, and we would express a hope that this example may be followed by the profession of this State, in these our annual meetings for mutual benefit.

Begging pardon for this digression, we will return to the subject under consideration. As a prophylactic for laceration, we have suggested the use of an artificial dilator, and therefore in order to be more explicit, let us notice some of the advantages resulting from it. As to the proper time for introducing the dilator, in vertex presentations, we should not deem it advisable until after the os was fully dilated, flexion had taken place; the head had engaged in the superior strait and the membranes ruptured. For this reason dilatation of the vagina and vulva will tend to increase uterine contraction by reflex action, and therefore it becomes important that progress is not impeded by an unnatural position of the fœtal head.

In cases of obstructed labor before the head reaches the inferior strait, we would not recommend its use. The efficiency of Barnes' dilator as applied to the os uteri, was fully established in the able article on obstetrics presented at our last session, and its application (as a preventive for laceration) to the external organs of generation we regard as equally efficient and of quite as much importance. We can hardly conceive of any evil results accruing from its use. The pressure must of a necessity be equal on every part, and elacticity of the rubber produces continual dilatation. By withdrawing the water it can be readily removed from time to time, if necessary for an examination.

It is hoped by your committee that these suggestions may

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elicit your careful consideration, and that your practical application of them during the coming year may establish their merit or enumerate the objections to them.

As the use of anæsthetics in obstetric practice has rapidly been gaining favor with the profession, we will ask for its consideration your further attention for a brief time.

It is not our purpose in presenting this subject, to indorse the indiscriminate use of anæsthetics in parturition as is the practice with some, neither would we vibrate to the other extreme and reject it entirely. During the past year we have had a number of cases in which the use of chloroform was indicated, and have been fully convinced of its efficacy in each instance.

From our own observations and the reports of others, the most usual condition requiring its use is rigidity of the circular fibres of the cervix, and in these cases we have found it to work like a charm, relaxing these barriers and bringing labor to a speedy termination. For this purpose, however, we have never adopted the practice of producing complete anæsthesia. By placing the hand over the fundus of the uterus, the accoucher can easily anticipate the coming pain several seconds in advance of his patient, and may be able to produce sufficient anæsthesia to greatly alleviate her sufferings, still allowing her to remain conscious between the pains.

Taking as our guide the experience of eminent obstetricians, we have the evidence that the risk to the mother by the use of anæsthetics in obstetrics is greatly diminished as compared with surgical practice. As far as our knowledge extends, no cases of death from anæsthetics in midwifery have been reported. This exemption from mortality is accounted for on the principle that a tolerance is produced by the pain which already exists, and the theory is substantiated by the fact that a great majority of the cases of death reported have occurred where minor operations were being performed.

From all the information which we can obtain, and the experience we have had in the use of chloroform in the lying-in chamber, we are satisfied that it is a safe and often times very useful agent so far as the mother is concerned; but we are not quite so well satisfied concerning its safety to the child. The

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danger to the child, however, in our opinion, is more imaginary than real, and although it may be made to appear hazardous in theory, we shall be under the necessity of waiting for further statistical reports, as the result of practical demonstration to fully convince us. Many of our most eminent obstetricians regard the practice as entirely safe both to mother and child. As a precaution, however, we would suggest that the use of chloroform in parturition be postponed until the pains become quite active, in order that the state of anæsthesia may be as brief as possible. We can readily conceive the possibility of the system becoming so impregnated with this or any other poisonous drug that may enter the circulation, as to produce serious or even fatal consequences with the fœtus. And it has been under the conviction that we have always used the minimum amount, allowing the patient to recover as far as possible between the pains. It must be remembered, however, that nature has placed, as it were, a double guard over the passage to the circulation of the child in utero, so that the mother in fact may be poisoned, while the fœtus escapes. Drugs taken by inhalation have to pass by endosmosis and exosmosis twice before reaching the system of the child, as is also the case when taken into the stomach.

It has never been our misfortune to deliver a child still-born after the use of chloroform, except in one case in which the fœtus was dead before the anæsthetic was administered, and as this was a case of some interest, we will report it in brief.

Mrs. H., a multipara, was taken in labor at three o'clock A. M., on the eighth day of November last. Being under the care of a midwife, the management of the case was left entirely to nature. Pains were regular and all went well until ten P. M., when the membranes were ruptured and a hand presented. Dr. Wood was immediately sent for, and arriving at three A. M., of the ninth, found the left arm presenting and attempted version, without success. We were called at six in the morning, but having a distance of fifteen miles to ride, did not reach the patient until eight o'clock, and found the condition of the lady quite critical. The countenance wore a haggard look, and the pulse was quite feeble. The left arm was protruding from the vulva, and the shoulder was closely impacted in the pelvis, the

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dorsum of the fœtus corresponding to that of the mother. A pulseless loop of the funis had prelapsed into the vagina previous to the arrival of Dr. Wood. This position of the fœtus had already existed for ten hours, and we predicted that dissection would be necessary, but decided first to attempt version. After bringing the patient well under the influence of chloroform, with the right hand we grasped the arm, and by the assistaece of external manipulation, succeeded in rotating the shoulders to the fundus of the uterus, still keeping hold of the arm until the hand had passed within the os. Then seizing both feet, the child was turned and delivered withou further trouble. In this case anæsthesia was carried to a sufficient extent to almost entirely control the muscular power of the uterus. The recovery of the patient was speedy and complete.

In concluding our remarks on the use of anæsthetics, we will mention that one of the great barriers and bugbears to their general adoption is the tendency which the public have of attributing any and all unfavorable symptoms, conditions or results to the use of these agents, and should the practice ever become general, in the opinion of many, chloroform with the parturient woman, like worms with children, will have to bear the curse for all the evil consequences which may follow, whether in reality the case or not.

In conclusion, your committee would impress, if possible, the importance of this branch of the profession, soliciting for its advancement your earnest co-operation, and expressing a hope that you may be prompt in heralding through your public journals any cases of interest which may come under your observation. It is by this means, and this only, that we can make rapid advancement in any science. The experience of many makes more perfect the practice of all.

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REPORT OF THE COMMITTEE ON CLIMATOLOGY TO THE KANSAS STATE MEDICAL SOCIETY.

BY C. C. SHOYER, M. D.

TABLE OF METEOROLOGICAL OBSERVATIONS MADE AT LEAVENWORTH CITY, KANSAS, FOR THE YEAR ENDING MARCH, 1868.

MONTH & YEAR.	Maximum.	Minimum.	Highest mean for 24 hours.	Lowest mean for 24 hours.	Mean for the Month.	Mean for the Month for 34 years.	Greatest diurnal range.	Mean diurnal range.
April, 1867	78°	29°	62°	39°	50	55.47°	33°	19°
May, "	77	30	70	50	56	63.64	32	17
June, "	91	53	78	61	71	71.31	28	18
July, "	93	36	82	64	72	76.67	31	17
August, "	93	52	81	67	76	74.16	28	21
September,"	90	41	82	51	66	66.16	33	19
October, "	86	28	77	38	57	54.46	36	18
November,"	73	4	63	16	46	40.36	43	24
December,"	64	7	53	16	36	29.77	32	17
January, 1868	58	*11	45	6	20	28.00	36	19
February, "	66	*2	51	3½	33	31.15	40	23
March, "	88	22	74	31	51	42.22	45	15

*Below zero.

Mean temperature for the year, 52.50°.

Mean temperature for the year, for thirty-four years, 52.81° *vide* Prof. G. C. Swallows's Report on the Geology of Kansas. Climatology by T. Sinks, M. D., p. 178.

Mean diurnal range for the year, 18.91°

Our meteorological system is essentially continental—more subject to the laws that control remote inland districts than oceanic influences—situated between the two and not exposed to the extremes of either.

Here the climatic conditions of the past year were but modified sequences of phenomena arising in the mountains; for every radical change in temperature could be traced over a vast internal field westward, reaching from New Mexico to Montana, differing in degree only.

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The 5th day of January was the beginning of our past winter. The mercury on that day, marked at Helena, Montana, 29° below zero; at Cheyenne, Dakota, 20° below; at Denver, Colorado, 16° below; at Omaha, 4° below; at Leavenworth City, 2° above; at Jefferson City, Missouri, 4° above zero; and beyond this these characteristics merged into conditions that govern the eastern slope of the Valley of the Mississippi.

Snow storms that originated in the mountains or on the plains, were visited upon us in proportion to the duration and force of their elements.

Our rains, too, proceed from the same quarter, and it would seem that the vapor arising from the melting snow and ice furnished the necessary moisture.

The rainy season began with the melting snow of the plains and in the mountains, and ended when it was exhausted in the far regions of the north, or the elements were again locked up in the conditions of an approaching Arctic winter. Our rains rarely result from saturation, but are preceeded by electrical phenomena, and are what are termed tempestuous rains. The lower current of our atmosphere is most always comparatively dry, except immediately after a copious rain. This abscence of humidity is often protracted to the moment when rain commences falling. During the rainy season the winds were exclusively continental, with a preponderance from the southwest. From this direction, also, came our first rains, but later in the season they proceeded more from the northwest.

Our continental position, comparatively free from oceanic influences, gives us an advantage of several degrees in latitude, and an immunity from frost at the close of the season, not generally enjoyed within the same parallels.

In illustrating this, reference is had to the effects of a storm that prevailed in the North Atlantic States at the close of September past, and extended from New Hampshire to Nashville, Tennessee.

"One of the most terrific snow-storms experienced in the White Mountain region in many years, began on the evening of September 29th, and continued with violence throughout the night."

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"BOSTON, September 30, 3 o'clock P. M.

"A cold northeast rain-storm commenced here this morning and still continues."

"NEW YORK, October 1.

"A decidedly cold snap has been the sequence, if not the consequence, of the gale of Sunday night."

"ALEXANDRIA, VA., October 1.

"There was a heavy frost on Monday night. Surely the fall has come upon us with a rush."

"RICHMOND, VA., October 1.

"There was a heavy frost here last night."

"NASHVILLE, TENN., October 2.

"We had a heavy frost here last night."

"ST. LOUIS, MO., October 1.

"A slight frost occurred here last night."

While here at Leavenworth City, at 3 o'clock P. M., of October 1st, the mercury marked 86°, and the mean temperature of the night following, was 75.5°, with the thermometer in the open air.

In these results we have an anomoly in the fact that frost occurred at Nashville, Tennessee, on the night of the first of October, while here at Leavenworth City, over three degrees further north, the mean temperature of the same night was at summer heat; and I might here add, that we were further exempt from frost for twenty-eight days after. Such exhibits might tax our credulity, were not the elements for their solution before us.

The storm referred to, originated on the ocean, probably high up in the icy region of the North, and swept down the North Atlantic States in great fury, bringing with it the temperature of a frosty region. In its course it deposited snow in one State, cold rain in another, and the result of a low temperature in all.

The force of the storm sent its cold winds far down into the southwest. When at Alexandria, Richmond, Nashville, and St. Louis, they produced frost; but the storm-belt was not broad enough to take in Leavenworth City.

This is not an isolated case, for nearly all similar storms of

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the many that subsequently occurred, produced like results, while here our genial weather continued undisturbed, and without frost until October 30th, after an absence of one hundred and seventy-six days, equal to half a year, lacking about six days.

Up to this latter date, our market was supplied with melons, cucumbers, green beans, tomatoes and other tender fruits and vegetables, while the lawns of the city were decorated with dahlias and other delicate flowers.

Autumn merged into a pleasant winter, which also passed away without the disagreeable concomitants of the season, while the North Atlantic States were subjected to a rigorous and protracted winter, that diffused its influence over the region along the line designated by the storm of the first of October, and far beyond.

No disease of a very grave nature has prevailed, epidemically, in the State or city the past year. The only marked disease was an epidemic of tonsillitis occurring in young children, as a complication of bronchitis, and gradually invading the larynx and tonsils, rendering the cry hoarse but not croupy. West, on children, says he never, or but a few times, saw tonsillitis in children under five years old, and that it is very uncommon under the age of puberty, stating also his experience to have been that when you see the throat inflamed, you are to look for scarlatina. In none of these cases was such a diagnosis possible, though one of our physicians stated that he had six cases of scarlatina; but as no other physician met the disease, it is but fair to infer that he mistook the disease for the one I mentioned. The treatment was uniformly successful, no case of death from it, and all of us treated it about alike, without previous knowledge of each others' treatment, viz: chlorate potass in infusion of elm bark as a drink; warmth to the throat and general diaphoresis and purging. There has been less than the usual amount of sickness generally, and malarial pulmonary and rheumatic diseases were markedly less prevalent. We would return our sincere thanks to Mr. Hawn, meteorologist of this city, for the above report on meteorology.

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REPORT OF THE COMMITTEE ON MALARIAL DISEASES TO THE KANSAS STATE MEDICAL SOCIETY.

BY T. SINKS, M. D.

The preponderence of malarial diseases over all others in the State, the agency the malarial poison exercises in other affections by its greater or less prevalence, and the uncertainty which exists in reference to its exact nature, unite in rendering this subject of the chiefest importance to us as practitioners of medicine.

Your committee regret that responses to inquiries were so meagre that their report is necessarily very circumscribed, and lacks that fullness and completeness which should characterize all such productions. The following, however, is believed to be a fair outline of the history of these diseases in our State during the past year:

The first half of the year 1867, was a period of almost unexampled good health and freedom from malarial disorders. About the first of September they suddenly began to be quite prevalent, and so continued until late in November, when the return to comparative infrequency was quite as sudden.

The fevers were generally mild in form, but were characterized by unusual obstinacy and a strong tendency to recurrence.

The type of the fevers was almost purely intermittent. Of the remittent and congestive types, there were but few cases comparatively, and of these scarcely any were fatal. But few cases of typho-malarial fever were seen, and even in those which would admit of that title, the typhoid element was by no means prominent.

In reference to the nature of the materies-morbi of these fevers, nothing new has been developed during the year, and as your committee have no theories of their own to offer, time will not be consumed in the lengthy and useless discussion of the numberless ones of others. It is worthy of remark, however, that professional opinion is rapidly converging towards, and pointing to, climatic influence, as the subject which

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promises a more satisfactory solution of this vexed question, than any other.

In the treatment of these affections, two objects are sought to be accomplished, viz: to arouse the secernents to full activity, and to interrupt the recurrence of the paroxysms. For the former purpose, mercurial preparations and the various salts of the alkalies are resorted to. For the latter, the great anti-periodic remedy, cinchona and its pareparations are universally used.

It is gratifying to know that—amidst the doubts and uncertainties of medical sciences—the conflicting theories of the nature of those diseases, the prevailing scepticism as to the value of drugs, and even among the hordes of quacks of whatever character, there is one drug which holds its position unquestioned, that, in the language of Bartlett, "there is at least one great and important therapeutical relationship definitively and positively ascertained and established."

Favorable reports on the use of the sulphites in these diseases have been made, and theoretically there is much plausibility in the promises they convey, but your committee are constrained to say that in their hands there salts have proved of but little value.

Chloroform exerts a very happy influence in the cold stage of intermittents by quieting the rigors and modifying the subsequent fever, and in periodical neuralgias is quite efficient in allaying the pain, but is powerless in preventing the return of the paroxysm.

Cases occasionally presented which proved rebellious to ordinary measures, and the paroxysms continued to recur in spite of any one of the anti-periodics however heroically administered. In these cases a combination of quinine, strychnia and arsenic rarely failed to accomplish the desired result.

In the opinion of your committee, a free use of diuretics and diaphorites in the early stages of remittent fevers, has been attended with better results than when anti-periodics were resorted to before a distinct intermission occurred. This is especially true when the eliminative organs are defective in function.

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REPORT OF A CASE OF CHRONIC DIARRHŒA TO THE KANSAS STATE MEDICAL SOCIETY.

BY J. W. BROCK, M. D.

You are all familiar with the subject of my essay, both theoretically and practically, as all of you have had the disease in its acute or chronic form. If you never have, you should have, if for no other purpose than to test the calibre of your guts—I mean diarrhœa.

I propose to say something of the treatment of a case of chronic diarrhœa that I have had under my charge for some time. I commenced this case last December, and only succeeded in imparting the glad news to my patient that he was well, about two weeks since, and I only did so then, because I thought that spring and warm weather had really come, and I could not require any more fuel for my stove, as I burn coal, and my patient deals in that article, so you can readily perceive my motive in thus prolonging the case.

I learned from my patient that he contracted this disease in the fall of 1864, while in the army. He had all the symptoms of the disease, which it is unnecessary to give in detail. He had, previous to the time I took charge of the case, several attacks of hemmorrhage of the bowels, which came near terminating fatally. He had an average of eight operations of the bowels in twenty-four hours, which were attended with excruciating pains and no pleasure. The bowels were badly swolen, appetite poor, digestion imperfect; never slept more than four or five hours during the twenty-four, and that was not attended with the amount of refreshment that an individual with a clear conscience and sound stomach and bowels usually anticipates. I asked numerous questions—many of them foreign to the case. This I had to do to impress upon his mind the importance and dignity of my profession, and to make him conscious that there really was something in the healing art. He had been treated by other physicians, some of whom I knew were as likely to accomplish a cure as myself, but he said that they had failed—whether attributable to

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the doctor or patient I am unable to say. He invariably was aroused in the morning at three o'clock (this, he said, was a sure thing), and from that until daylight, he suffered intense pain. I thought this had the appearance of periodicity, so there I stuck a pin (any one else would have thought the same). I had learned from others—the source from which I derived the bulk of my knowledge—that there was virtue in an exclusive milk diet in cases of this kind. I therefore put him upon a milk diet. I tried this as long as I thought prudent, knowing that Leavenworth boasts of other physicians none the less known to fame than myself, I thought it advisable to medicate some. I will give you a list of remedies used, not stopping to give you the number of grains and scruples, drachms and ounces of each medicine, as you are all familiar with the dose and effect of each remedy.

I gave opium, tannin, bismuth, all the Ferruginous preparations, many of which are said to contain active emmenagogue properties, mercury in various forms, nuxvomica and its salts, quinine, castor oil, turpentine, assafœtida and bourbon whisky. Of the latter I had him keep a liberal supply, because it is a remedy that few persons refuse to take—said to be good to aid digestion.

Of the local applications, I used mustard, mush, hops, cantharides and tincture iodine. I attribute the cure to the following remedies: Argenti nitratis, gr. ½; ext. opii, gr. ½; quinine, gr. 5; to be given three times a day; to take half an ounce bourbon whisky after each meal to aid digestion. When the bowels are uncomfortably distended, take assofœtida. Locally, I applied tincture of iodine to the abdomen at night, and repeated as I thought necessary. Allowed him beefsteak rare, mutton chops and rye bread. I think that his stomach and bowels became thoroughly disgusted with the quantity and quality of medicine administered, and fearing that I had a reserve in store for them that would out *nasty* assofœtida, they concluded to yield and act like other peoples' guts in the future. Had they not done so, I would have brought forward my reserve, as I was confident the man would soon apply to some one else, perhaps, and who might have cured him with something that I have not yet seen or read of in the dispensa-

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tory, and thereby pluck laurels from my professional brow which justly belonged to me. But luckily for the man, and his stomach and bowels, they yielded. Had they not, I had in store for them one more dose, which will cure or produce a case of diarrhœa, and that was a heroic dose of impeachment.

REPORT OF A CASE OF OVARIAN CYST TO THE KANSAS STATE MEDICAL SOCIETY.

BY M. A. CAMPDORAS, M. D.

Mrs. F., fifty-three years old, has had nine children and one miscarriage, which was the first time she became pregnant; has not menstruated since 1858. In the first months after the cessation of menstruation, she was exposed for a few days at the periodical times, to pains more or less severe, in different parts of the abdomen. Before, her health was good, and has been since then, except that her feet became the seat of an inveterate psoriasis.

In December, 1866, the patient was kept in bed a week or ten days by what the medical attendant called an inflammatory of bowels. When she got up again, she discovered in the lower part of the hypogastric region a tumor of the size of a plum, causing a very little pain. Some time after, she felt a good deal of difficulty in voiding her urine, but after repeated trials, she succeeded in moving the tumor further up (which had somewhat increased in size), and the dysury ceased.

The 23d of April, 1867, I was called to see her. She was in bed, feverish. The tumor, of a pyriform shape, as big as an orange, was situated on the mesial line, two inches below the umbilicus. It was hot and so painful that I could hardly touch it. An examination per vaginum, satisfied me that the uterus was not effected. I enjoined rest, light diet, small doses of sulphate of magnesia and emollient applications.

A few days after, the inflammatory and pain having in a certain degree subsided, I was able to make a better examination, and found that the tumor, whose size and shape were

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unchanged, gave no sign of fluctuating, and had contracted adhesions with the abdominal walls. In all other parts it was movable yet; prescribed tonics. The tumor remained in the same condition until the middle of May, when it burst two or three inches below the navel, and discharged with a certain quantity of a thin liquid, two small, roundish, yellow balls, the size of a cherry, which came out only after the most severe pains. At various times during the summer, many more of the same roundish, yellow balls were expelled, amounting, all together, to thirteen or fourteen. I might say that once I introduced a probe to the depth of five inches. Last winter the health improved gradually, the fistula healed up, and before the end of February, the tumor itself had disappeared. To-day the woman is quite well, the psoriasis having yielded to Fowler's Solution and hyposulphite of soda, externally.

The advanced age of the patient, the previous uninterrupted good health of her sexual system, her great fecundity, the short duration, at least apparently, of the disease, the nature of the contents of the cyst, render this case so interesting, that I sincerely regret that an imperfect knowledge of the English language, numerous occupations and the long distance the patient lives from my residence, did not allow me to give more than a mere sketch of it.

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MINUTES OF THE ANNUAL MEETING OF THE KANSAS STATE MEDICAL SOCIETY.

REPORTED BY D. W. STORMONT, M. D., SEC'Y.

TOPEKA, May 12, 1869.

The society met in Baptist Hall, Topeka, May 12, 1869, at 2 o'clock P. M., and was called to order by the President, Dr. Parsons.

The minutes of the last meeting were read and approved.

The following members were present: Drs. A Newman, M. Bailey, J. Parsons, J. J. Crook, E. Tefft, M. A. Campdoras and D. W. Stormont.

A communication was read from Dr. C. A. Logan, excusing his absence from the meeting.

Drs. Bailey and Tefft were appointed to fill vacancies on the board of Censors.

The following gentlemen were nominated for membership: Drs. L. Northrup, Grasshopper Falls; W. W. Rogers, Topeka; J. W. Trueworthy, Emporia; Eli Lewis, Topeka, and L. D. Jacobs, Emporia. The nominations were referred to the board of censors, who reported favorably, and they were elected. Being present, they signed the Constitution, paid their initiation fees, and were admitted to membership.

The treasurer being absent, Dr. A. Newman was appointed treasurer *pro tem.*

Drs. Tefft, Trueworthy and Rogers were appointed a committe on unfinished business.

Drs. Newman, Bailey and Northrup were appointed a committee on nominations.

Drs. Logan, Sinks, Brock and Stormont were appointed a committee on publication.

Reports from standing committees were called for; none present.

Reports from special committees being in order, Dr. Stormont read a paper on the "Postural Position in the Operation

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of Version in Utero." Referred to the committee on publication.

Dr. Rogers, from the committee on unfinished business, reported that a report was due from the committee on prize essays, and on pathological specimens, and also from the committee appointed to revise the Constitution and By-Laws of the society. The report was received and the committee discharged.

Dr. Bailey read a paper on the "Medical and Surgical History of the 19th Regiment Kansas Volunteers," in the late campaign against the Indians. Referred to the committee on publication.

Report from the committre on prize essays and pathological specimens called for; none present.

On motion of Dr. Newman the committee was continued on both subjects, and the prize for the best essay was increased to fifteen dollars. It now stands as follows:

Resolved, That a medal of the value of fifteen dollars be offered as a prize for the best essay on the Endemic Diseases of Kansas; the contestants to be members of this society; and that a committee be appointed to examine the essays and adjudge the award according to the rules customary in such cases. Said committee to report at the next meeting.

Resolved, That a prize medal of the value of ten dollars be offered for the best specimen of Pathological Anatomy, to be presented at the next meeting of this society; and that the committee on prize essays be appointed to adjudge the award.

The committee on prize essays consists of Drs. Weaver, Sinks, Root, Budington and S. B. Prentiss.

Dr. Stormont, from the committee to revise the Constitution and By-Laws, submitted a report, and read a new Constitution and By-Laws, which were offered for adoption by the society.

Dr. Newman moved that they again be read and voted on by sections.

Dr. Tefft moved as an amendment, that they be adopted as a whole; the amendment was carried. The motion as amended, was then put and carried unanimously, and the society adopted the new Constitution and By-Laws for its government; ordered to be published with the transactions.

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On motion of Dr. Bailey the society adjourned until 7 o'clock this evening.

EVENING SESSION.

The society met according to adjournment, the president, Dr. Parsons in the chair.

The secretary read the following report from the treasurer:

J. L. PRENTISS, Treasurer,

To the Kansas State Medical Society, *Dr.*

To cash on hand at last report,	$17 00
To cash received, fees and assessments,	44 00
Total,	$65 00
	Cr.
Paid order of president for printing Transactions last year,	$50 00
Balance on hand,	11 00
	$61 00
Due the society on annual assessments for the year ending May, 1869,	$54 00

I am under the necessity of stating, that on or about the 1st of March last, I lost my pocket record which contained a list of those delinquent in the payment of their annual assessment previous to April 15th, 1868, and am therefore unable to make a complete report. J. L. PRENTISS, *Treasurer.*

The report was received and referred to an auditing committee, consisting of Drs. Tefft, Newman and Trueworthy. They subsequently submitted the following:

Your committe would report that they have not sufficient data from which to determine whether the report of the treasurer is correct or not.

E. TEFFT,
J. W. TRUEWORTHY, } *Committee.*
A. NEWMAN,

The report was adopted and the committee discharged.

Dr. Newman read an essay on "Specific Disease Poisons," which was referred to the committee on publication.

The committee on nominations submitted their report, and made the following nominations for officers and committees for the ensuing year, who were elected:

Time and place for holding the next annual meeting, Atchison, second Monday in May.

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OFFICERS.

President.—Dr. M. Bailey.

Vice-Presidents.—Drs. M. S. Thomas and J. M. Linley.

Secretary.—Dr. D. W. Stormont.

Assistant Secretary.—Dr. J. Parsons.

Treasurer.—Dr. J. L. Prentiss.

Censors.—Drs. C. A. Logan, A. Newman, J. M. Linley, J. W. Brock and E. Lewis.

STANDING COMMITTEES.

Diseases of Respiratory Organs.—Dr. C. C. Shoyer.

Dysentery.—Dr. L. Houston.

Erysipelas.—Dr. D. W. Thomas.

Venereal Diseases.—Dr. J. L. Weaver.

Gynecology.—Dr. C. A. Logan.

Infantile Diseases.—Dr. D. W. Stormont.

Zymotic Diseases.—Dr. J. W. Brock.

Climatology.—Dr. W. B. Carpenter.

Rheumatism.—Drs. Morris and Russell.

Indigenous Remedies.—Dr. J. J. Crook.

Practical Medicine.—Drs. T. Sinks, W. W. Cochrane and J. W. Trueworthy.

Surgery.—Drs. M. S. Thomas, J. Parsons and L. D. Jacobs.

Obstetrics.—Drs. L. Northrup, J. M. Linley and J. L. Prentiss.

Materia Medica.—Drs. A. Newman, W. W. Rogers and V. V. Adamson.

The president, Dr. Parsons, then delivered his valedictory address. Referred to the committee on publication.

Dr. Bailey offered the following resolution, which was adopted.

Resolved, That the secretary be authorized to contract with the publishers of the Leavenworth *Medical Herald* for the publication of the transactions of this meeting in that journal, and to have one hundred copies published and bound separately.

Dr. Stormont moved that each member of the society exert himself to procure paying subscribers to the *Medical Herald*. Carried.

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The Kansas College of Pharmacy had some fine botanical specimens on exhibition in the hall during the meeting.

On motion of Dr. Newman the society adjourned to meet in Atchison on the second Wednesday in May next.

REPORT OF THE COMMITTEE ON SPECIFIC DISEASE POISONS.

BY DR. ALBERT NEWMAN, M. D., LAWRENCE.

Besides the mischievous products everywhere resulting from the putrefaction of organic substances, and the poison of malaria, there is a large and important class of disease poisons, each of which produces peculiar and characteristic effects upon the human organism, and possesses the property, under favorable circumstances, of reproducing its kind to an almost unlimited extent.

Our knowledge of the nature of these poisons is, as yet, purely hypothetical; their very existence is to be inferred only from their effects. Yet their action is so peculiar, and the series of morbid phenomena produced by each in the human organism so uniform and constant as to place their existence and the general character of their action beyond question. And recent investigations have thrown so much light upon the modes of their development and propagation as to give great precision and certainty to hygienic measures for their suppression and destruction.

The products of putrefaction manifest their deleterious influence by impairing the functions of digestion and nutrition, and by deteriorating the quality of the blood. They are, therefore, exceedingly important predisposing causes of disease. It is certain, also, that, when in a sufficiently concentrated state, they produce diarrhœa, and sometimes vomiting with great prostration of the vital powers. But they are not competent alone, in any degree of concentration to produce any specific disease having a tendency to propagate its kind

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like the class of poisons now under consideration. This property of self-multiplication under favorable circumstances, is one of the most remarkable and important characteristics of this class of disease poisons, and one which strikingly distinguishes them from all other poisons.

The favorite, if not exclusive soil in which these poisons propagate, is found in the living body, and from their multiplication here there results the several series of morbid phenomena which constitutes the specific diseases which they induce.

In respect to some of these specific poisons, however, it is believed by Pettenkoffer and some others, that they have their chief centre of multiplication outside of the living body in decaying excrementitious matters. This is claimed to be especially true of the cholera poison, and probably also of the poisons of typhoid fever and dysentery. The researches and observations of Dr. Budd, in respect to the propagation of typhoid fever, and of Drs. Budd, Pettenkoffer, Simon and others, in respect to cholera, seem to show conclusively that in these diseases the intestinal discharges contain the specific poison, and are the most ordinary medium of its propagation. It may now be affirmed as the uniform teaching of numerous observations that it is from privies, sewers, and other receptacles of human excretions that the poisons of cholera and typhoid fever are chiefly, if not exclusively, set free. But it is also claimed that the infective power of cholera discharges is greatly increased during their decomposition, and that this increase of infection power is produced by the continued multiplication of the cholera poison. In the language of Dr. J. Simon: "It appears to be characteristic of cholera, not only of the disease in its developed and alarming form, but equally of the slightest diarrhœa which the epidemic influence can produce, that *all matters which the patient discharges from his stomach and bowels are infective;* that the patient's power of infecting other persons is represented almost or quite exclusively by those discharges; that they, however, are comparatively non-infective at the moment when they are discharged, but afterward, while undergoing decomposion, acquire their maximum of infective power."

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If this increase of infective power during the decomposition of cholera execretions be admitted, it does not necessarily follow that such increase is due to the continued multiplication of the poison. Such an hypothesis is indeed rendered improbable by certain well established facts to which I shall allude hereafter. Nor does it follow if the statement of Dr. Aitken, that "the cholera poison (and probably also typhoid fever poison and dysentery), if can it be at all multiplied within the body, almost certainly has its great centres of multiplication *elsewhere*, namely, in those avoidable foci of corruption where excrement accumulates and decays," be true, that these specific poisons are any less closely dependent for their production upon the presence of a pre-existing poison of the same kind, than is the specific poison of small-pox or measles. Whatever may be the nature of these specific poisons they all agree in this, *that they require the presence of a pre-existing poison of the same kind for their production.*

In respest to the poison of small-pox, all agree that it never originates spontaneously from any of the metamorphoses which organized matter undergoes in its return to the inorganic state; and the same is undoubtedly true of all the poisons belonging to this class. This fact alone may be accepted as strongly confirmative of the truth of the hypothesis that these poisons are living organisms or the germs of living organisms. It is certain that all we know of the modes in which these poisons multiply is strikingly analogous to what we know of the modes of reproduction of the lower forms of cryptogamic and infusorial life, while, as Dr. Bartholow well observes "it is altogether incredible that dead organic matter should possess the wonderful powers of growth and multiplication which we know is the property of *materies morbi*, or that it should impress this power upon other organic matter."

The action of each of these specific poisons upon the human organism is, as I have already said, exceedingly uniform and constant under all circumstances. Small-pox, for example, has been the same in all ages of the world, in all climates, and among all races. The same is true of measles and scarlatina, and probably of all the diseases of this class. In respect to some of the diseases which these specific poisons produce, and

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which have sometimes arisen under circumstances which rendered actual contact with a pre-existing case of the disease improbable, it has been claimed by some that they are sometimes produced by contagion and that they sometimes arise spontaneously from local causes. In respect to the spontaneous origin of any of these diseases, it may be said that it is exceedingly improbable—indeed scarcely possible—that a specific disease, presenting the most uniform and constant characteristics under the most varying and even opposite conditions of climate, season, and local influences, should be produced at one time by a specific morbid poison, and at another time by a different poison. Cholera, for example, has been everywhere characterized by the same symptoms and the same terrible fatality, whether occurring during the rigor of a Moscow winter, or the heat of a tropical summer. In its Westward march it has embraced a latitude of over 60°. Affecting chiefly large and populous towns, it has not confined itself to them, but has visited with the same terrible fatality sparsely settled and salubrious agricultural districts. It is difficult to avoid the conclusion that a disease so constant and uniform in its characteristics under such great variations of seasons, climate, and external surroundings, can be produced only by a specific cause; and it is certainly not less difficult to conceive it possible for any combination to exist which would generate the same specific poisons in all seasons of the year, and throughout the great range of climate in which cholera has prevailed epidemically. The same may be said of typhoid, typhus and yellow fevers, although the last two have prevailed within much narrower geographical limits. Cholera never existed in this country till 1832. What peculiar combination of local causes could have come into action then, that had never existed before? Yellow fever is confined to the hot season and with few exceptions to commercial seaports in warm climates; but the Board of Health, of the city of New Orleans, in a report made in 1846 say: "The experience of former years would lead us to conclude that more or less rain, or a greater or less degree of heat, has very little to do with the production of yellow fever; for that disease has been known to prevail here alike in dry and wet seasons, and without regard to the

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variations of temperature in the summer months." After desolating Charleston at the close of the seventeenth century, it left it untouched for twenty-five years. What local causes present and active before and after could have remained latent and inactive during all these years? There is but one hypothesis which satisfactorily explains all that we know of the habits and history of these diseases; namely, that each disease of this class is caused by a specific poison, which, under favorable circumstances, propagates its kind, but which is never produced by any combination of local causes independent of the presence and action of a pre existing poison of the same kind.

It is, therefore, altogether improbable that a single disease of this class can be produced by any other agency than its own specific poison. And whenever a disease of this class exists there, we may be sure exists the specific poison which alone can produce it, and which from its known tendency to rapid multiplication, demands the most prompt and efficient measures for its early suppression and destruction. Besides, the property of self-multiplication, these poisons, as a class, possess certain others of great hygienic importance.

1st. When exposed to air and moisture they do not retain their activity or poisonous properties beyond a very brief period, the exact limits of which, however, we as yet lack the necessary data to determine.

This is an exceedingly important fact, without which it would be possible for any one of these diseases to become endemic in any locality to which it was once introduced; but by reason of this fact, no epidemic of any of these diseases can be long continued, but by the frequent occurrence of new cases. If the occurrence of new cases can be wholly prevented for a few days, even the epidemic must permanently cease, unless new foci of the disease poisons are introduced or opened up. We are all familiar with the rapidity with which vaccine virus, even in a dry state, exposed to the open air, loses its infective power; and the history of all the diseases of this class clearly indicates that the same is true of the specific poison by which each is produced. These diseases are all characterized by alternating periods of activity and repose, as respects any

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given community, though always in existence somewhere. Their invasion is ordinarily sudden, and their spread rapid, till having swept over a community, they die out and wholly disappear for a longer or shorter period—sometimes for many years. It ordinarily requires that a short time only should elapse after an epidemic of any one of these diseases has entirely ceased in a given locality, however extensive it may have been, and however abundant therefore the specific poisons generated, to render a visit to such locality entirely safe for unprotected persons.

This fact clearly established with respect to cholera, would seem incompatible with the hypothesis that the cholera poison has its great centers of multiplication outside of the living body. If this hypothesis were true, the poison might, certainly, under favorable circumstances, propagate its kind indefinitely, independent of the occurrence of new cases of the disease; and we might certainly expect to see the disease become endemic, at least in some localities. But the history of this disease shows no tendency to such a result, at least in this country. It must, however, be admitted that certain conditions of climate, soil or local influences, not as yet accurately determined, tend to delay or prolong the process of decomposition of the cholera poison, so that under such circumstances the time that the cholera poison may remain active without being renewed by new cases of the disease, is considerably prolonged. According to Dr. Pettenkoffer the conditions of soil most conducive to this, are porousness, a considerable admixture of excrementitious matters, and the existence of water at a short depth below the surface.

It is not impossible that the continued existence of this disease in India is brought about by this and other causes which tend to prolong the vitality of the cholera poison, rather than by any combination of causes which tend to favor the production or multiplication of the poisons independently of any actual cases of the disease. Under ordinary circumstances, however, and when freely exposed to the open air these poisons all manifest a tendency to rapid change and decomposition.

2d. When shut up in a confined space of air, especially in a

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dry state, these poisons may retain their specific infective properties for many months; and they may in this way be transported from one place to another, as by soiled linen, or clothing, which has been in contact with the disease or their excretions, or so exposed to an atmosphere impregnated with the specific poison that some of it has become attached to its surfaces, or imbedded in its substance, and in this condition, shut up in trunks or otherwise excluded from contact with the outer air; and may, when thus transported, produce these diseases at places considerably distant from any actually existing case of disease of the same kind.

Well authenticated instances of the transmission of measles, scarlatina, typhus fever and cholera in this way, are too common and familiar to need repetition here.

The testimony of observers is very uniform; that washerwomen and those who handle the clothing and effects of cholera patients are particularly liable to contract the disease; and instances in which the disease has been contracted from clothing transported in trunks over considerable distances, or shut up in drawers for a considerable time, are numerous and convincing. The circumstances attending the outbreak of the disease in the village of Moor Monkton* in 1832, when there were no cases of the disease nearer than thirty miles, are particularly instructive. A woman died of cholera at the town of Leeds. Having no children, her effects were sent to her brother, John Barnes, at Moor Monkton, by the regular conveyance without having been washed. John Barnes opened the trunk one evening and was attacked with cholera the next morning.

Dr. Pettenkoffer relates the following case: "A family of laborers living at Lurtheim, had a daughter at service in Munich. This daughter sent to her parents food and some old clothes of a family of which some members had died of cholera. On the third day after eating the food and putting on the clothes, both father and mother were *attacked with cholera and died.*"

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*Cited in Report of Cholera Commission to the International Sanitary Conference.

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It is important, also, to remember that there are other facts which show "that the camping-place where an epidemic has existed in India, the ward of an hospital, the chamber, the ship which has had cholera patients on board, may sometimes preserve for a certain time, and under certain conditions, the power of transmitting the disease."—(Report of Commission on Cholera.)

3d. These poisons all gain access into the system in the great majority of cases with the air inspired; but the distance to which they can be conveyed by the atmosphere from the point of emission without the loss of their active properties, does not ordinarily exceed a few yards. There is also evidence to show that some of these poisons may be introduced into the system with water used for drink. Some of these poisons may be conveyed by the atmosphere without loss of their peculiar properties considerably farther than others. The specific poison of small-pox is probably communicable at a greater distance than that of any other disease of this class. It is certain that both small-pox and measles may be communicated from one room to another in the same house. The specific poisons of typhus and typhoid fevers and cholera, however, in rooms or tents well ventilated, wholly lose their active properties at a very short distance from the foci of their emission. It is supposed by Griesinger that the probability of the action of the cholera poison diminishes in the direct ratio of the squre of the distance from the point of emission.

But although it is undoubtedly true that in the great majority of instances the specific poisons of these last named diseases do not produce their effects beyond a few feet, or, at most, yards, from the point of emission; a few cases have been observed which would seem to show that under some circumstances they may produce their specific effects at a much greater distance than this. It is said that a case of cholera was produced in Sunderland in 1848, at a distance of a mile from the focus of the poison; and another in Ireland at an equal distance in the direction of a violent wind; and also that two vessels of the French squadron of the Black Sea, after coming in sight of land, and before arriving at Baltchick, had each a case of cholera on board; and that some cases ocourred

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under corresponding circumstances in an English squadron when in sight of Malta, where cholera was prevailing. These cases, however, do not seem to have been so carefully recorded as to exclude the possibility of their having originated from other sources; still the possibility of transmission under favorable circumstances to a considerable distance, must be admitted; although the fact of such transmission can hardly be considered as conclusively established.

It would seem also to be well established that some of these specific poisons at least, are sometimes introduced into the system in water used for drink. This would seem to be especially true of such of these poisons as are contained chiefly or largely in the discharges from the stomach and bowels. These discharges being thrown out upon the soil, the water which falls upon or permeates the soil, takes up the specific poison and bears it to the neighboring stream and wells, the water of which becomes thus impregnated with the poison, and serves as the vehicle for its introduction into the system. That this actually takes place with the specific poisons of cholera and typhoid fever, a considerable number of recorded instances seems to show. Dr. Snow cites an instance of an outbreak of cholera confined to a single street, and limited to persons who used water from a certain well, the water of which had been affected by a leakage from a sewer. This water, transported to a distance, is said to have communicated cholera to a person who drank it. If there is no error of observation here, this is certainly a most conclusive case.

Dr. Carpenter, in an article on epidemic diseases, cites the following case, which can hardly be interpreted upon any other hypothesis than the water of this well was impregnated with the cholera poison, and was the vehicle of its introduction into the system: "In Manchester a sudden and violent outbreak of cholera took place in Hope street, Salford. The inhabitants used water from a particular pump-well. This well had been repaired, and a sewer which passes within nine inches of the edge of it became accidentally stopped up and leaked into the well. The inhabitants of thirty houses used the water from this well. Among them there occurred nineteen cases of diarrhœa, twenty-six cases of cholera, and twenty-five deaths.

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The inhabitants of sixty houses in the same immediate neighborhood used other water; among these there occurred eleven cases of diarrhœa, but not a single case of cholera, nor one death."

An instructive instance of the introduction of the typhoid fever poison into the system in a similar manner, occurred at Williamstown, Md., in 1860. At a boarding house occupied by from thirty to thirty-five persons, mostly student's of William's college, typhoid fever broke out about the middle of June; and in the course of two weeks the greater portion of the occupants became affected. The disease did not make its appearance elsewhere in town, and a local cause was therefore inferred. Upon searching for this cause, "a drain which received all the refuse of the house was found to be choked near its exit into another drain, which conveyed surface water from a highly cultivated field, and which also ran near the well. * * * Among the boarders were a number who did not drink the water at dinner, and of these it was remarked that not one sickened. The family of one of the professors of the college, living in an adjoining house, and using water from this well, sickened like the others, the professor who drank no water at dinner, alone escaped. * * * All that drank the water *unboiled* had the disease; all who avoided it in this state, escaped.

While, therefore, it is undoubtedly true that these poisons are most frequently introduced into the system through the respiratory membrane, the possibility of their introduction through the digestive mucous membrane as a contaminating ingredient of drinking water, should not be lost sight of.

4th. A limited period of time more or less uniform and constant in respect to each specific poison elapses between the introduction of the poison into the system, and the commencement of the morbid phenomena which it induces.

This period of development probably indicates the time required for the generation of a sufficient amount of the poison to produce its peculiar constitutional effects. It varies considerably in different diseases of this class, being from ten to sixteen days in small-pox and measles; considerably less in scarlatina, perhaps, upon an average, about five days; in

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typhoid fever from three to fourteen days; in yellow fever from two to twelve days, and in cholera from a few hours to a week, but in the great majority of cases not beyond three or four days.

5th. The virulence of the action of these poisons is not at all in proportion to the degree of their concentration, or the amount of the poison introduced into the system; but rather in proportion to the hygienic condition and constitutional susceptibilities of those exposed to their action.

The truth of this proposition can scarcely need proof, we see the mildest cases of varioloid sufficient for the production of the severest cases of small-pox; and a single case of choleraic diarrhœa give birth to a fatal epidemic of cholera. And in all these diseases we see very different grades of severity produced by infection from the same source. It may therefore be inferred that the introduction into the system of the smallest possible amount of any one of these poisons in an active state, is sufficient for the production of its specific effects, the severity of which will depend upon the condition of the vital forces and the immunity acquired by previous attacks of the disease or otherwise.

6th. These poisons are destroyed by heat and by various chemical agents.

The truth contained in this proposition is especially important in a hygienic point of view; and an accurate knowledge of the relative efficacy and of the modes of action of the several agents ordinarily used as disinfectants, is of the greatest importance. The researches and experiments of a considerable number of recent observers, foremost of whom stand Dr. Angus Smith, and Mr. William Crookes, have thrown much light upon the true action of these agents, and given a precision and rationality to their use wholly unknown before. It is hardly too much to say that the well directed researches of these and subsequent observers have wrested these agents from the pale of empiricism and placed them among the resources of scientific and rational medicine.

Disinfection, as the term is ordinarily used, includes the accomplishment of three distinct purposes, namely: 1st. The destruction of the affluvia of putrefying organic matter or the

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prevention of their emission and dissemination. 2d. The arrest or prevention of the process of putrefaction by which these effluvia are generated. 3d. The destruction of the specific disease poisons. Recent researches have clearly elucidated the relative adaptation of a considerable number of agents to the perfect accomplishment of each of these purposes; so that we may here, as well as elsewhere, intelligently adopt the agencies we employ to the end we desire to accomplish. If that end be simply to destroy or neutralize putrid affluvia, we can use the agents which have been proved most efficient for that purpose. And knowing as we do that although putrid effluvia are always harmful, they cannot of themselves produce any specific disease; and that upon the other hand the specific poisons may be present and destructively active even where no putrid affluvia exist, we shall not commit the mistake of expecting to destroy these disease poisons by agents, the action of which is wholly expended in destroying or neutralizing such affluvia; but we shall, whenever the presence of any of these disease poisons is manifested by the occurrence of one of the specific diseases, seek for an agent capable of attacking and destroying the disease poison, knowing that this property has no necessary relation to the capacity of the agent for destroying or neutralizing putrid effluvia, and that some of our most efficient agents for the destruction of these effluvia exert little or no action upon these specific poisons.

Humanity and science may well rejoice that the researches and experience of the last few years have so clearly defined and demonstrated the action and efficacy of a considerable number of these agents, that we can depend upon them with great certainty for the accomplishment of this purpose. We are no longer compelled to go forth to meet one of those terrible destroyers of human life with doubtful or untried weapons of defense. We now know both the habits and haunts of our enemy, and the manner and means by which he may be successfully attacked and routed. This is certainly true of cholera, hitherto so terrible, because so mysterious in its approach, and so destructive in its effects, and which in the period of fifty years has carried to the grave almost as many millions of victims; and if not yet true to the same extent of all the diseases of this class, it is rapidly becoming so.

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PROCEEDINGS OF THE ANNUAL MEETING OF THE KANSAS STATE MEDICAL SOCIETY.

[REPORTED BY D. W. STORMONT, M. D., SECRETARY.]

ATCHISON, May 11, 1870.

The society met in Presbyterian Hall, Atchison, May 11, 1870, and was called to order at 2 o'clock P. M., by the first vice-president, Dr. M. S. Thomas, the president, Dr. Bailey, being absent.

The minutes of the last meeting were read by the secretary, and approved.

The following members were present:

Drs. M. S. Thomas, C. A. Logan and J. W. Brock, of Leavenworth; Drs. J. M. Lindley and W. W. Cochrane, of Atchison; Drs. J. Parsons and W. W. Crook, of Mt. Pleasant; Dr. H. K. Kennedy, of Osawkee; and Dr. D. W. Stormont, of Topeka.

The following gentlemen were proposed for membership, viz: Drs. W. H. Grimes, J. V. Bryning, A. H. Lanphier and Wm. J. Burge, of Atchison; Dr. S. R. Anderson, of Granada; Dr. S. T. Odell, of St. Louis, Miami Co.; Dr. D. C. Jones, of Junction City; Dr. J. Wood, of Doniphan; Dr. S. F. Neeley, of Leavenworth; and Dr. Fred. Speck, of Wyandotte.

These applications were referred to the board of censors, who reported favorably. The gentlemen were all elected, and being present, signed the constitution, and were admitted to full membership.

The treasurer being absent, Dr. W. W. Cochrane was appointed treasurer *pro tempore*.

Drs. Speck, Burge, Jones, Parsons and Neeley were appointed a committee on nominations.

The secretary read the report of the treasurer, as follows:

J. L. PRENTISS, Treasurer,

To the Kansas State Medical Society,	*Dr.*
To cash on hand at last report,	$11 00
To cash received for fees and dues for the year,	21 00
Total,	$32 00

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	Cr.
By cash paid for printing Transactions last year,	$32 00
Amount of dues unpaid for the year ending May 12, 1869,	51 00
Amount of dues unpaid for the year ending May 11, 1870,	60 00
	$111 00

Drs. M. Bailey, D. W. Stormont, and J. Parsons, were the only members who paid their dues for the year ending May 11, 1869.

There have been no dues paid for the year ending May 11, 1870.

The above statement is respectfully submitted to the society.

J. L. PRENTISS, *Treasurer.*

Reports from the regular committees were called for. None were ready. The committees were excused and the fines remitted.

Reports from special committees were called for. Dr. Logan stated that his report on gynæology was not yet quite finished. On motion, the doctor was required to complete his report for publication in the transactions.

Dr. Stormont gave a synopsis of his report on Infantile Diseases. Referred to committee on publication.

Dr. Brock asked further time to report on Zymotic Diseases. On motion of Dr. Logan he was continued on this subject.

No other special committees being present, volunteer papers were called for. Dr. Neeley reported a case of dislocation of the hyoid bone. After discussion, it was referred to the committee on publication.

Dr. Bryning read a paper on the medical properties of the ostrya virginica or iron wood. Discussed extensively. Referred to the committee on publication.

Dr. J. Wood moved that a committee be appointed to report at the next meeting on the use of the concentrated preparations. Carried.

Dr. Burge read a paper on calomel, which gave rise to a general discussion. Referred to committee on publication.

On motion of Dr. Logan, it was ordered that a special committee be appointed to report on mercurials at the next meeting.

On motion of Dr. Logan, the society adjourned until 7½ o'clock this evening.

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EVENING SESSION.

The society met according to adjournment, and was called to order by vice-president Thomas.

The committee on nominations submitted a report, which was amended and adopted as follows:

Place for holding the next meeting, Wyandotte; time, first Wednesday in June, 1871.

OFFICERS.

President.—Dr. M. S. Thomas.

1st Vice-President.—Dr. W. H. Grimes.

2d Vice-President.—Dr. D. C. Jones.

Secretary.—Dr. D. W. Stormont.

Assistant Secretary.—Dr. J. Parsons.

Treasurer.—Dr. J. W. Brock.

Censors.—Drs. C. A. Logan, W. W. Cochrane, F. Speck, S. R. Anderson, and H. K. Kennedy.

STANDING COMMITTEES.

Practical Medicine.—Drs. S. F. Neeley, F. Speck and S. T. Odell.

Surgery.—Drs. J. W. Brock, W. H. Grimes and S. R. Anderson.

Obstetrics.—Drs. D. W. Stormont, D. W. Thomas and A. H. Lanphier.

Materia Medica.—Drs. T. Sinks, J. V. Bryning and W. W. Crook.

SPECIAL COMMITTEES.

Recent Advances in Physiology.—Dr. J. Parsons.

Recent Advances in Chemistry.—Dr. T. Sinks.

Recent Advances in Gynæology.—Dr. D. C. Jones.

Infantile Diseases.—Dr. J. L. Prentiss.

Mercurial Preparations.—Dr. J. Burge.

Rheumatism.—Dr. C. A. Logan.

Indigenous Remedies.—Dr. J. V. Bryning.

Concentrated Remedies.—Dr. J. Wood.

Climatology.—Dr. A. Newman.

Gelseminum.—Dr. S. T. Odell.

Committee on Arrangements.—Drs. F. Speck, C. A. Logan and S. F. Neeley.

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On motion of Dr. Parsons, the society went into an election of delegates to the next meeting of the American Medical Association. The following gentlemen were elected, viz: Drs. C. A. Logan, D. W. Stormont. W. J. Burge, W. H. Grimes, J. Parsons, M. S. Thomas, W. W. Cochrane, S. R. Anderson, J. W. Brock and Fred. Speck.

On motion of Dr. Logan, the president was empowered to appoint additional delegates, if it is found we are entitled to them.

On motion of Dr. Stormont, each delegate was authorized to appoint his own substitute, in case he cannot attend.

Dr. Parsons moved that a committee of three be appointed to devise a design for a seal for the society. Carried.

Drs. Parsons, Speck and Odell were appointed.

The committee subsequently reported a design, which was adopted, and the secretary was authorized to procure a seal and draw on the treasurer for the cash.

Drs. Sinks, Cochrane, Wever, Burge and Stormont were appointed a committee on publication.

The secretary read a communication from a committee of the American Medical Association, enclosing resolutions of the association on medical education, and requesting the action of the society on them.

Dr. Logan offered, for adoption by the society, the following preamble and resolutions, which embrace the resolutions of the National Association, viz:

WHEREAS, The subject of medical reform, which has been so persistently agitated by the profession for the past twenty years, has been barren of any practical good results; because partly of the great diversity of opinion as to *how* and upon what terms the reform could be instituted; and

WHEREAS, In the present influx of population to the State, we are being flooded with medical adventurers of all hues and pretensions, and the time seems most propitious for making a decided step toward the suppression of an evil, which only grows stronger and more deeply-rooted with age; and believing it impossible to digest a plan, which shall be perfect in detail, save through the corrective results of a long and ripe experience; therefore,

Be it Resolved by the Kansas State Medical Society, That this society does hereby accept as a basis for action, the report of the committee *On Various Communications and Propositions from*

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Medical Societies, etc., made at the last meeting of the American Medical Association (May 1869), and does hereby adopt in part and whole the accompanying resolutions, which report and resolutions are in the terms following, to-wit:

Report of the Committee on Various Propositions and Communications from Medical Societies, etc.

After a fair examination of the various propositions concerning medical education, medical legislation, and ethical regulations for medical colleges, referred to your committee, we respectfully submit the following report:

WHEREAS, The history of medical legislation in the various States of this Union, clearly shows that no reliance can be placed on either the uniformity or the permanency of any laws relating to the practice of medicine; and

WHEREAS, The results of all the efforts made during the last twenty-five years, to elevate the standard of medical education, through concert of action among the numerous medical colleges of this country, have proved with equal clearness that such concert of action, in an efficient manner, is unattainable; therefore, be it

Resolved, That whatever is done to establish and maintain a just and fair standard of medical education throughout our whole country, must be done by the profession itself, through its own voluntary organizations, in the same manner that it now establishes and enforces its code of ethics. The profession is as competent to declare, through its representatives to the national, State and local societies, what shall be the standard of attainments for those to be recognized and admitted into its ranks, and to establish the boards or agencies by which compliance with such standard shall be ascertained, as it is to declare what shall be the ethical rules governing the conduct of those already admitted.

Resolved, That this association earnestly requests each State Medical Society to appoint annually one or more Boards of Examiners, composed of five thoroughly competent members, whose duty it shall be to meet at suitable times and places, for the examination of all persons, whether graduates of colleges or not, who propose to enter upon the practice of medicine in their respective States, except such as have been previously examined and licensed by a similar Board in some other State.

Resolved, That each State Medical Society be requested to make such regulations concerning the pay of the Boards of Examiners, and the fee to be charged for a license to practice, that the former shall in no case depend on the amount received from the latter.

Resolved, That each State Medical Society be requested to require its Examining Board or Boards to exact of every applicant for examination, adequate proof that he has a proper general education.

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is twenty-one years of age, and has pursued the study of medicine three full years, one-half of which time shall have been in some regularly organized medical college, whose curriculum embraces adequate facilities for didactic, demonstrative and hospital clinical instruction.

Resolved, That each State Medical Society be requested to act on the foregoing propositions at the next regular annual meeting after the reception of copies of the same, and if approved and adopted by the State Medical Societies of two-thirds of the States, this association shall deny representatives from all organizations who longer refuse to comply with the same, and shall recommend the State societies to do the same, and all persons who, after that date, seek to enter upon the practice of medicine without first receiving a license from State Board of Examiners, shall be treated ethically as irregular practitioners.

Resolved, That in adopting the foregoing resolutions, by which it is proposed to treat the medical college diploma the same as the diploma of any literary college, this association is actuated by no desire to injure the medical schools of our country. On the contrary, by the adoption of the fourth resolution at the same time that the mere college diploma is practically nullified, it is the desire, and confident expectation, that those institutions will be greatly benefited; because they will be forced to rival each other in the extent and efficiency of their courses of instruction, instead of the number of diplomas which they can annually distribute.

All of which is respectfully submitted.

N. S. DAVIS,
PAUL F. EVE,
E. S. GAILLARD,
E. LEE JONES,
J. K. BARTLETT.

Be it further Resolved, That, in accordance with the requirements of the foregoing resolutions, this society shall elect annually, until otherwise determined, a Board of Examiners for the State at large, to consist of five members of the society--gradutes of reputable medical schools, and of good social and professional standing, neither of whom shall be, at the same time, a member of the Board of Censors of this society- whose duties shall be as follows:

First. To make the oath before a competent officer, that they will discharge, fearlessly and impartially, the duties of their office, so far as is within their ability.

Second. To assemble at such place as the majority may determine, upon the first Mondays in January, April, July and October, and to remain in session so long as may be necessary to examine all the applicants who may come before them,

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Third. Upon presentation of the proper certificate from the secretary of the society, to examine each applicant for the society license, upon the following branches: anatomy, physiology, chemistry, materia medica, surgery, theory and practice of medicine, obstetrics, and the diseases of women and children. The details of which examination may be arranged by the Board, but which shall be conducted with the purpose of honestly ascertaining the fitness of the person to assume the responsible duties of the physician and surgeon. In the determination of the question of granting the license, the decision of the majority of the Board shall be binding upon the others; a rejected applicant being permitted to re-apply at the expiration of a period of three months.

Fouth. Upon the favorable issue of an examination, to give the person passed, a certificate to the secretary of the society, which shall be a warrant to that officer, to issue under the signature of the president and the seal of the society, the society license.

Be it further Resolved, That the members of the Examining Board shall receive from the treasurer of the society, as compensation for their services, the sum of ..... cents per mile, for each mile traveled in going to and returning from the sessions; and the further sum of $..... per day for each day the Board is in necessary session. No member of the Board shall receive or accept any fee whatever from any applicant, directly or indirectly.

Be it further Resolved, That if it be charged in writing by a member of the society, that a member of the Examining Board has accepted a bribe, or has dishonestly lent his influence to pass an unworthy candidate, such member shall be cited to appear before the regular Board of Censors of the society, at such time and place as they may dictate, and also his accuser; at the proper time the evidence shall be heard, and the case decided. If the member be found guilty, he shall be dispossessed from his office, and his name shall thereafter be published, annually in the society reports, as a man who has violated his trust. All decisions of the Board of Censors shall be subject to an appeal to the society, at a regular or special session.

Should a vacancy occur in the Examining Board, by removal, resignation, death, or failure properly to perform and attend to the duties of the office (to be decided in the latter event by the member's *confreres*), the vacancy shall be filled by appointment from the president and vice-presidents of the society, until the ensuing meeting of the society.

Be it further Resolved, That immediately upon the adjournment of the present session the secretary shall have printed in good form, a license in the following words:

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KANSAS STATE MEDICAL SOCIETY.

Know all Men by these Presents: That the Board of Examiners of the Kansas State Medical Society, have duly examined..... in the following branches of medicine: anatomy, physiology, chemistry, materia medica, surgery, theory and practice, obstetrics, and the diseases of women and children, and finding him to be sufficiently well acquainted with the principles of the profession, to warrant the assumption that he will practice it with skill, safety and credit, have issued him this license, authorizing him to pursue the practice of medicine and surgery, and their collateral branches within the State of Kansas, under the sanction and recognition of the Kansas State Medical Society.

In testimony whereof we have hereunto set our hand and the seal of the Kansas Society, this....day of....., 18..

.... } *Board of Examiners.*

ATTEST: .....*President.*

.....*Secretary.*

The secretary shall also have printed a number of blank certificates in the following:

OFFICE SEC'Y KANSAS STATE MEDICAL SOCIETY,

.....KANSAS, ...18..

To the Board of Examiners of the Kansas State Medical Society:

This is to certify that... ... , has this day made application for examination by the State Board of Examiners, and having been properly recommended, and paid the usual fee therefore ($.), he is entitled to examination for the society license.

ATTEST: .....*Secretary.*

Be it further Resolved, That from and after the expiration of three months from this date, it shall be considered imperative upon all members of the profession in the State, to appear before the Board of Examiners for the purpose of undergoing examination and receiving the society license; provided, however, that those persons who are members of the society at this date, shall receive the license without passsing an examination, upon the payment of the regular fee ($..), should the Board of Examiners be satisfied with their qualifications, without the examination. Should any person now in the State, neglect or refuse to appear for examination within the next three months, or should any person hereafter coming into the State, for the purpose of practicing medicine, neglect or refuse to apply and appear for examination within three months after he shall have become settled for business, such person shall be treated ethically, by all the members of this society and those holding its license, as an *irregular* practitioner; and as such,

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it shall be unlawful for any member of this society, or one holding its license, to consult with or to recognize professionally in any way, such irregular practitioner. Upon proof of a wilful violation of this law, the Board of Censors shall cause the name of a member to be stricken from the roll, and to revoke the license of any offending party holding it.

Be it further Resolved, That any person desiring to appear before the Examining Board, shall make application to the secretary of the society, and enclose the examination fee of ten dollars. Said applicant shall state if he be a graduate, and from what school; and he shall also enclose a reference as to his professional and moral standing. Upon the satisfactory compliance with these terms, the secretary shall fill out the certificate above set forth, forward it to the chairman of the Examining Board, and the applicant must appear at the next session of the Board for examination. Should the applicant be rejected, the fee shall be returned to him by the secretary.

Be it further Resolved, That in order these resolutions may have greater permanency, they are hereby laid upon the table as amendments to the constitution of the society, to be acted upon at the next session, though they shall have full force and effect as resolutions until altered or repealed by the society.

Be it further Resolved, That the officers of the society shall petition the next Legislature, to so amend the act passed last winter, relating to the practice of medicine, that these resolutions and the policy they seek to establish, shall have the full force of statutory law; and futher that they be solicited to incorporate a provision restraining any practitioner of medicine from collecting a fee, who has not procured the society license after the lapse of the proper time.

On motion of Dr. Lanphier, an informal ballot was taken upon the adoption of the preamble and resolutions, which resulted as follows: For the resolutions 15, against 5.

The discussion upon the subject was then entered into, and it was finally agreed to make the preamble and resolutions a special order for the next meeting, it being ordered that they be published in full in the society proceedings.

Dr. Logan moved that the thanks of the society be tendered Dr. Grimes, Dr. Parsons and others, for their efforts in securing the passage, by the last Legislature, of the Medical Bill. Carried.

Dr. Parsons offered the following resolution, which was adopted, viz:

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Resolved, That a committee of three be appointed by the chair to prepare a device for certificates of membership of the Kansas State Medical Society. These certificates shall be gotten up in elegant style, in size not less than ten by fifteen inches, to be printed on paper parchment, with blanks for the seal and signatures of the president and secretary. The committee to report at the next annual meeting.

Drs. Logan, Brock and Lanphier were appointed the committee.

Dr. Burge moved that these transactions be published in the *Medical Herald*, and one hundred extra copies be struck off and bound. Carried.

On motion of Dr. Logan, the two prize offers made at the last meeting, were continued another year.

On motion of Dr. Parsons, the following gentlemen were appointed the committee on prizes for this year, viz: Drs. Lanphier, Kennedy, Neeley, D. W. Thomas and Wood.

Dr. Horne, of Junction City, was proposed for membership. Referred to the Censors.

Dr. M. S. Thomas gave the history of a case of lithotomy, which he was requested to prepare for publication in the transactions.

On motion of Dr. Logan, the society adjourned to meet in Wyandotte on the first Wednesday in June, 1871.

GYNECOLOGY.

BY DANIEL C. JONES, M. D., JUNCTION CITY, KANSAS.

[Read before the Kansas State Medical Society.]

In order that my subject may be simplified and more clearly delineated, I will give a brief description of the anatomy of the parts of the female organs of generation, of which my subject treats. It may seem unnecessary, to most of you, to follow in minute detail each part, yet for the full elucidation of my subject, I think it proper, and most of you being my seniors in the profession, I shall crave your indulgence but a

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short time, as it is both my habit and inclination to deal with the plain facts, rather than lose myself in the mythical realms of abstruse science.

The external organs of generation in the female are the mons veneris, the labia majora and minora, the clitoris, the meatus urinarius, and the orifice of the vagina—the term vulva, or pudendum, includes all the parts.

The vagina is a membranous canal extending from the vulva to the uterus; it is situated in the pelvis behind the bladder, and in front of the rectum; it is cylindrical in shape, flattened from before backwards, and its walls are ordinarily in contact with one another; its length is about four inches along its anterior, and between five and six along its posterior walls; it surrounds the vaginal portion of the cervix uteri at some distance from the os, and its attachment extend higher up on the posterior than on the anterior wall; structure, three coats external, or muscular, a layer of erectile tissue, and an internal.

The uterus, in the virgin state, is pear shaped, flattened from before backwards, and situated in the cavity of the pelvis between the bladder and the rectum. It is retained in position by the round and broad ligaments on each side, and projects into the upper end of the vagina, below its upper end or base, is directed upwards and forwards, its lower end or apex downwards and backwards in the line of the axis of the inlet of the pelvis, and forming an angel with the vagina, the direction of which corresponds to the cavity and outlet of the pelvis. Its size, three inches in length, two in breadth at its upper part, and one inch in thickness. It weighs, at puberty, from seven to twelve drachms. After parturition, from one and a half to two ounces. It is divided into fundus, body, cervix and os uteri. The uterus has three coats, an external or serous, a middle or muscular, and an internal or mucous. (See Gray's Anatomy.)

The beauties of science can only be exemplified by the application of each new theory to practice, although the practice of gynecology in this country is in its infancy. It is so closely connected with anatomy and physiology that each new discovery in either branch adds another link to uterine

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pathology. In order to treat a diseased organ rationally and scientifically, we must have an accurate knowledge of the function of said organ, also its structure and its relation to other organs.

With your permission, I will now invite your attention to the special pathology of ulceration of the os and cervix uteri. Most modern authors have divided ulceration into three different stages or degrees. The most simple form, says Scanzoni, is that known under the names of erosion or excoriation of the uterine orifice. It appears as a simple denudition of the epithelium, extending sometimes over both lips of the uterine orifice, which is a livid red color, and its velvet-like surface can easily be distinguished from the smooth, rosy surface of the surrounding membrane, is one of the frequent accompaniments of acute and chronic catarrhal inflammations of the mucous membrane of the vagina and cervix uteri. It is generally caused by a softening or imperfect adherance of the epithelium, brought about by a hyperæmic condition of the mucous membrane lining the organs affected. The act of coition, or the rubbing of the neck against the walls of the vagina, as in walking, dancing, working on a sewing machine, detaches it from the parts which it protects, and the spots thus left bare constitute the erosion in question. This form of erosion bears a marked resemblance to apthous ulceration which sometimes attacks the mucous membranes of the uterus, and is often an accompaniment of apthæ of the buccal mucous membrane. Appropriate treatment, both constitutional and local, is required, as it is generally kept up by crasia of the blood, and a broken down condition of the general health. Iron, quinine, strychnine and cod liver oil, a generous animal diet with out door exercise, are among the most potent constitutionol remedies. The local treatment should be conducted mechanically, as well as medically. First the cervix should be surrounded by pledgets of cotton batting to protect the abraided surfaces from coming in contact with each other. Next the hyperæmic condition should be relieved, which can most easily be accomplished by glycerine applied by means of tampon of cotton batting; to this may be added ten gtts. of acid carbol to each ounce, which will serve as a disinfect-

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ant, and may have some curative effect. Iodine applied by means of a brush is highly recommended, and where we have hypertrophy as an accompaniment, is often of benefit. Most of the astringents have, from time to time, been extolled as specifics, also potassa, chlor. in solution, but I have derived very little benefit from astringents locally, except the acid, nit. of mercury, and argt. nit. applied to the ulcers in full strength, repeated two weeks alternately. The former should be applied with a glass rod dipped in the solution. The latter with the solid stick.

When erosion, such as I have been describing, is left to run ts course, or aggravated by an injudicious treatment, or filthy habits, or where the patient is guilty of venerial excesses, it emerges into true or granular ulceration, with loss of substance. You can also discover numerous vegetations of a globular form, not larger than the smallest bird shot. On close inspection you find them to be the papilla of the mucous membrane greatly enlarged, which gives the ulcerated surface an uneaven or granular appearance. The lips of the uterus are ordinarily of a livid or blush red color. The borders of the ulcers are irregular, portions of mucous membrane, covered with epithelium, project from their edges, covered with a muco-purulent discharge, giving the ulcers a foul and disgusting appearance. On removing the excreta from the surface of the ulcers, we find the papilla enlarged and protruding above the surrounding tissue, and bleeding from the slightest irritation. This is generally associated with a general hemorrhagic condition of the cervix and cervical portion of the vagina. This form of ulceration never exists alone, but is always associated with chronic catarrh or engorgement, and less frequently with chronic hypertrophy of the cervix; and unlike most of the slighter diseases of the womb, never gets well without medical aid. If allowed to remain without treatment, excressences of cellular tissue spring up which are designated by Sims and Hewit as fungus growths. These fungoid granulations keep up congestion of the uterus and its appendages, preventing the natural changes of tissues which is constantly going on, thereby producing ovarian complication. The falopian tubes are also more or less affected through

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contiguous sympathy. When this affection has existed for any length of time, you find the following constitutional symptoms: sallowness of the skin, dark blotches on the cheeks, dark rings under the eyes, pain in the small of the back, soreness of the lower portion of the abdomen, pain in the top of the head, palpitation of the heart, creeping sensation about the thighs as though small insects were passing over the limbs, pain in the region of the stomach, indigestion, nausea, general anæmic condition with lucorrhœal discharge. These are among the most prominent symptoms complained of. At each menstural period the pain is greatly increased, and hysteria may be mentioned as one among the many nervous complications. Treatment: strychnine, arsenic, mercury, iodine, iodide of potassium, iron, quinine, hyoscyamus, bromide of potassium, valerian, cod liver oil and bitter tonics are recommended as constitutional remedies. Injections, astringents and caustic suppositories, tampons and topical applications are the local measure.

The treatment which I have found attended with the best success in my practice has been Donovan's Solution, given in four gtt. doses after meals, strychnine, iron, quinine and hyoscyamus combined in pills, Fowler's Solution in eight gtts. doses after meals, potass iodide with comp. spr. sarsaparilla, as constitutional treatment, with applications of medicated tampons locally. Where the ulceration is deep, cauterize with acid nit. of mercury, and then apply tampon moistened with acid carbol, gtts. ten, glycerine ten, which should be allowed to remain twenty four hours, and can then be removed by the patient, and an injection of bicarb. soda and water, a drachm to the pint, used which removes all pus and mucous that accumulates in the vagina during the time the tampon is allowed to remain. I have also found great benefit from sulphate of alumina enclosed within the tampon and allowed to become dissolved by the secretions from the cervix. Carbolic acid, in full strength, applied with a camel hair pencil, so as to penetrate into all the intersticies of the ulcers, and tinc. iodine applied in the same manner to the sound tissue surrounding the ulcers, I found of much benefit. Nitrate of silver, in stick, applied is attended with good results, but as

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this is the form of uterine disease which we are called upon to treat more frequently than another, and it seems to me most perplexing of all others, we may, under constitutional remedies, include all tonics and alteratives; locally, all astringents and caustics.

We are thrown upon our own resources in each particular case that we are called upon to treat, and should always bear in mind that perseverance, with good judgment, will accomplish wonders in this respect; and when we take a case of granular erosion, we should first impress it upon the mind of our patient, that time is one of the great prerequisites in her case, and never promise speedy cures, for if we should, we would soon find ourselves minus our patient. It is the experience of all writers on gynecology, that in granular erosion, many months, and sometimes years, elapse before a permanent cure can be affected.

I shall now give a brief description of cocks-comb, or a more advanced form of fungold granulations. We find it forming upon the surfaces of old and neglected granular ulcers. We most frequently find this form of fungus springing from the inner lips of the os, and often extending for half an inch into the cervical canal, and bleeds from the slightest cause. They are also covered with much pus and blood. These excrescenses are composed of cellulor tissue, and are very vascular. They are generally of a darkish or livid red color, and very close together. Their free borders are fissured and irregular. The layers can be separated with a small spatula introduced through a glass or quadruple-valve speculum, and in most cases we find an abundant secretion of purulent matter, which exerts an injurious influence on the general health. In most cases we find alarming menorrhœa, caused by a hyperæmia of these excrescenses, occasioned by the menstrual congestion. In almost every case of menorrhagia that has come within my notice, on close inspection, I have been able to detect fungus granulations springing from the lips or along the walls of the cervical canal. The treatment which has proved most efficacious has been tonics and alteratives internally; excisions, caustics and astringents locally.

It is my custom to commence four days after the menses

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have disappeared, by the introduction of a tampon made of cotton batting saturated with a solution ferre persulph., grains twenty, to an ounce of glycerine. This is allowed to remain thirty-six hours, and on its removal, I excise the granulations with long scissors curved on their flat surfaces, as recommended by Scranzoni and Sims, if the excrescences are so far up the cervical canal that they cannot be reached with a small tenaculum or straight scissors, I generally apply acid, nitrate of mercury in a concentrated solution, and in this way have had no trouble to get rid of these outgrowths. But after these are removed, our patient is not cured, and a general run of tonics and alteratives must be kept up, together with mild local applications, such as sulphate of zinc, or copper with glycerine, as a menstrum, until the mucous membrane has fully regained its proper function, and the balance equally adjusted between secretion and excretion. This may take many months where the constitution is broken down from its long continuance.

PROCEEDINGS OF THE KANSAS STATE MEDICAL SOCIETY.

WYANDOTTE, KAS., June 7, 1871.

Pursuant to adjournment, the Kansas State Medical Society met at Wyandotte.

Owing to the fact that the trains mostly arrived in the afternoon, no attempt at organization was made until five o'clock.

At that hour the members present repaired to Odd Fellow's Hall, and the society was called to order by Dr. D. C. Jones, of Junction City, second vice-president of the society.

The secretary being absent, Dr. D. W. Thomas, of Leavenworth, was elected to that position.

The minutes of the last meeting were read and approved.

At the opening, the attendance was small, the following gentlemen being present:

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Drs. C. A. Logan, J. W. Brock, D. W. Thomas and S. F. Neeley, of Leavenworth; J. M. Linley, W. W. Cochrane, A. H. Lamphier, of Atchison; D. C. Jones, of Junction City; F. Speck, of Wyandotte.

A motion prevailed to the effect that those desirous of becoming members of the society place their names with the secretary, together with the name of the college at which they graduated, and such other recommendations as they thought proper, and that the Board of Censors report on their cases at 8 o'clock P. M.

Drs. Lanphier and Brock were appointed by the chair to fill vacancies in the Board of Censors.

On motion, the convention adjourned until that hour.

On motion, the convention adjourned till that hour.

NIGHT SESSION.

At 8 o'clock the convention reassembled.

The following is the report of the Board of Censors, on the gentlemen making application for memberships:

"We, the undersigned Board of Censors, report the credentials of the following gentlemen correct, and recommend their admission as members:

D. B. Wren, Paola; George W. Holderman, Paola; H. S. Roberts, Manhattan; Bryant Grafton, Wyandotte; D. W McCabe, Wyandotte; Thomas J. Heaton, Baldwin City; C. P Lee, Insane Asylum; Abraham M. Wilder, Lawrence; C. H. Moore, Parkersville; Benjamin Woodward, Wyandotte.

A. H. LANPHIER,
W. W. COCHRANE,
FRED SPECK,
J. W. BROCK,
C. A. LOGAN,
} *Committee.*

The vote being taken by ballot, the gentlemen making application were admitted without a descenting voice.

On motion, Dr. Speck was appointed a committee to introduce the new members, who came forward and signed the constitution

Standing committees called in order.

On motion of Dr. Logan, all committees having no reports were discharged.

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Dr. Roberts exhibited a human skull presenting anomalies.

Dr. Woodward reported verbally a case of unconsciousness and loss of memory for several weeks after inhaling nitrous oxide.

Dr. Neeley reported a case of misplaced kidney.

Dr. Grafton reported a case of misplaced stomach, it being above the diaphragm, and in the cavity of the thorax.

Dr. Woodward presented a specimen of perforation of ilium, obtained by *post mortem.*

Dr. Logan said it was with pleasure that he saw three gentlemen of the profession from Kansas City on the floor—Drs. Lester, Payne and Shauffler—and on motion the courtesies of the society were extended to them.

Dr. Lester returned thanks for the courtesy, and stated that Dr. Langford, of Kansas City, Dr. Catlett, of St. Joseph, and himself had been appointed delegates from the Missouri Medical Convention to attend this meeting. The other gentlemen were unable to attend, and he was the only representative. Dr. Lester made a few remarks congratulating the profession on the evident good feeling existing in all quarters.

A communication was read from Dr. Wm. Burge, of Atchison, regretting his unavoidable absence, which was rendered necessary by sickness in his family, and having been appointed at the previous meeting to report on the subject of "Mercurials," requested further time.

ATCHISON, KAS., June 6, 1871.

To the President and Fellows of the State Medical Society:

GENTLEMEN:—I regret exceedingly my inability to be with you at our annual meeting to-morrow. Sickness in my family renders it impossible for me to leave home. During the past year I have anticipated with much pleasure the coming reunion of the medical profession at Wyandotte, and it is a serious disappointment to me that I cannot be present.

Having had the honor, at our last meeting, to be appointed on a special committee, I should deem it disrespectful to the society to omit a definition of my present position. I am free to confess, that I brought up the subject of "Mercurials" at our last meeting, partly for the purpose of stiring up your

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pure minds by way of remembrance, as the "apostle" has it, and yet I expressed at that time the theorem which another year's experience (though scarcely worth mentioning), has not in the least tended to disprove, viz: "That any disease which can be cured by mercurials, can be cured by other and safer remedies." I respectfully ask to have the committee continued for the following reason: 1st. That having looked at it during the past year, I perceive it to be a big subject. 2nd. That from my reading, I am convinced that the most scientific man in the world, with the largest access to hospitals, the largest use of public libraries, and the largest personal experience, could not do justice to the subject—I mean as a special committee, appointed by a State Society, unless he took two or three years in which to gather materials for his report. Believing that a committee, appointed to report on a special subject, implies honor, responsibility and thoroughness. I have thought best to report progress and request further time.

Very respectfully,

WM. J. BURGE.

Dr. McCabe of Wyandotte, requested permission, which was granted, to introduce a patient, Mr. Shingle, conductor on the Kansas Pacific Railroad, who had been afflicted with a disease of the eyes, for an examination by the physicians present.

Dr. Neeley, chairman on the committe on the practice of medicine, stated that his report was yet incomplete. On motion, he was granted further time, and it was ordered that said report be submitted to the committee on publication.

Dr. Brock, of the committee on surgery, read an able and somewhat eccentric essay on this subject, a number of illustrations, difficult cases, under this heading being given. Altogether the discourse was able and interesting.

The report was referred to the committee on publication.

The committee on obstetrics, consisting of Drs. Thomas, Lanphier and Stormont, having no report were discharged.

The committee on materia medica, having no report was also discharged.

Dr. T. Sinks, on the "recent advancement in chemistry," was granted further time.

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Dr. C. A. Logan, on "rheumatism," had no report, as he was not aware of his appointment until recently, and had no time to prepare.

The committee on infantile disease, indigenous remedies, concentrated remedies, climatology and gelsemium, having no reports were discharged.

Dr. Woodward read an interesting and illustrative discourse on the subject of "heart clot after parturition."

In the discussion which followed on this subject, Dr. Cochrane related some cases of this nature that had come under his observation. Remarks from several other gentlemen were also heard.

On motion of Dr. Logan, society adjourned until Thursday morning at 8 o'clock.

SECOND DAY.

At 8 o'clock, the acting president, Dr. D. C. Jones, called the society to order.

Reading of the minutes of the previous meeting was dispensed with.

Dr. Roberts, of Manhattan, read an interesting essay which was referred to the committee on publication.

Dr. D. C. Jones presented an instructive and illustrative paper on gynecology, which was received and sent to the same committee.

Dr. Langford, of Kansas City, was introduced, and, on motion, the courtesies of the society were extended to him, as were also to Dr. Dougherty, of Liberty.

Several interesting cases were presented by Drs. Wood, Neeley, Grafton, Woodward, Thomas and Eaton.

Dr. Brock offered the following, which was adopted :

WHEREAS, On the fourth day of the Proceedings of the American Medical Association of 1869, a resolution, by Dr. Moore, was adopted, that

"WHEREAS, The contract system is contrary to medical ethics.

"*Resolved*, That all contract physicians, as well as those bidding for practice at less rates than those established by a majority of regular graduates of the same locality, be classed as irregular practitioners."

Resolved, That the interpretation of this society, the design was in no wise to effect the usual contracts rendered necessary to

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secure efficient attendance on the poor of the city or county; nor the contracts necessary to meet deficiency of medical officers under certain circumstances of emergency in the army. But that any person who contracts to attend families by the year at a stipulated price, or who charges less than the established price determined by a majority of the regular physicians in his locality, is in clear violation of the above resolution, and should therefore be classed as irregular.

Dr. Thomas offered the following resolution, which after some debate, was adopted:

WHEREAS, We recognize the American Medical Association as the representative wisdom of our profession, and acknowledge our amenability to its decrees; and as it has declared in unequivoca language that certain acts on the part of members of the profes-l sion are irregular, and has declared its purpose in the following resolution offered by Dr. Collins, of Massachusetts, and adopted by the association:

"That the charge for medical examination for life insurances should not be less than five dollars."

Resolved, That the provisions of the resolution, as adopted, are binding on each member of this society.

A resolution of Dr. Logan, "That when the society adjourns, it adjourns to meet in Leavenworth on the second Tuesday in April, 1872," called forth an animated discussion.

Dr. Brock favored the resolution. Leavenworth, he said, offered every facility, and if the meeting was appointed for that city, there would be no difficulty in getting a quorum, as has been the case before.

Drs. Thomas and Lanphier favored Leavenworth.

Dr. Woodward was not in favor of Lawrence, as there were no members from that city present, and no invitation had been extended to them to come there.

After some further discussion, a vote being taken, the resolution passed, and Leavenworth was chosen as the next place of meeting.

On motion, the secretary was ordered to correspond with the different railroad companies in reference to procuring half-fare tickets for members attending the convention in future.

The chair appointed Drs. Brock, Wren, Woodward and Moore a committee on nominations.

The society then adjourned until 1½ o'clock P. M.

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AFTERNOON SESSION.

The society re-assembled at the appointed hour.

The committee on nominations reported the following list of officers:

President.—Dr. D. C. Jones, of Junction City.

1st Vice-President.—Dr. W. W. Cochrane, of Atchison.

2d Vice-President.—Dr. Geo. W. Holderman, of Paola.

Secretary.—Dr. D. W. Stormont, of Topeka.

Assistant Secretary.—Dr. S. F. Neeley, of Leavenworth.

Treasurer.—Dr. J. W. Brock, of Leavenworth.

Board of Censors.—Drs. D. W. Thomas, Benj. Woodward, H. S. Roberts, A. H. Lanphier and D. B. Wren.

The following committees were also appointed to report at the next meeting:

Practical Medicine.—Drs. J. V. Bryning, S. T. Odell and W. W. Crook.

Surgery.—Drs. J. W. Brock, A. M. Wilder and E. Russell.

Obstetrics.—Drs. D. W. Thomas, C. A. Logan and D. W. Stormont.

Materia Medica.—Drs. Benj. Woodward, J. M. Linley and C. H. Moore.

Recent Advances in Physiology.—Dr. Albert Newman.

Recent Advances in Chemistry.—Dr. Thomas J. Eaton.

Infantile Diseases.—Dr. A. H. Lanphier.

Mercurial Preparations.—Dr. Wm. J. Burge.

Rheumatism.—Dr. Bryan Grafton.

Indigenous Remedies.—Dr. J. W. Bryning.

Concentrated Remedies.—Dr. Levi Houston.

Venereal Diseases.—Dr. D. W. McCabe.

Uterine Hemorrhage.—Dr. C. A. Logan.

Climatology.—Dr. T. Sinks.

The following delegates were appointed to the different medical societies:

To the American Medical Association.—Drs. W. W. Cochrane, A. H. Lanphier, D. W. Thomas, J. W. Brock, S. F. Neeley, D. W. Stormont, C. A. Logan, D. C. Jones, Benj. Woodward and J. L. Weaver.

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To the Missouri Medical Society.—Drs. C. A. Logan, S. F. Neeley, Benj. Woodward and D. W. Thomas.

To the Illinois Medical Society.—Drs. C. Roberts, W. W. Cochrane, A. H. Lanphier and Bryan Grafton.

The courtesies of the society were extended to Drs. Taylor, Evans and Woodson, of Kansas City.

Dr. Thomas presented a number of vesicular calculi, each having hair nucleus.

On motion of Dr. Brock, Dr. Thomas was requested to report the case for publication when completed. Adopted.

Dr. Thomas drew the attention of the society to the resolution of Dr. Mussy in the American Medical Society, requiring annual registration of regular physicians in each State.

Report of Dr. J. W. Brock, treasurer, received.

Dr. J. S. Teed presented credentials from Missouri Medical Society, to whom the courtesies of the society were extended.

The resolutions of Dr. Logan, introduced at the last session, and laid over until the present, had been put off until the last moment. It was thought there would be a determined fight over them, but as a motion had prevailed to adjourn at five o'clock, very little time was left for discussion. The principal point in the resolutions was the appointment of a Board of Examiners, whose duty it should be to examine all physicians in the State as to their competency to practice the profession, giving none a certificate but those justly entitled to it.

After a short debate between Drs. Logan, Thomas, Lee and Lanphier, the question was called, and the resolution lost by a decided majority.

Dr. Lanphier said as there was nothing before the society, he would give them something to talk about, and thereupon offered the following resolution:

Resolved, That no discrimination, simply on account of sex, shall be made in our professional relations or associations with physicians.

After a pleasant discussion, engaged in by Drs. Lanphier, Holderman, Linley, Cochrane and Logan, and any number of amendments, the whole matter was laid on the table.

On motion of Dr. Brock, thanks were extended to the medi-

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cal profession of Wyandotte for courtesies shown members of the society.

Dr. Cochrane, in behalf of the society, returned thanks for the visits received from the medical gentlemen of Kansas City. He was glad to see the fraternal feeling that evidently existed between them. He hoped to see them often, and always trusted that a cordial feeling of kindness would be shown and acknowledged by the professions of the two States. Dr. Cochrane's remarks were listened to with pleasure by the Missouri delegation, and responded to by Dr. Taylor.

Dr. Shauffer, of Kansas City, had previously made a few remarks in reference to the congratulatory state of affairs in the relation of members of the profession, and also urged a support of medical journals, and reminding them of the fact that there was a publication of this nature at Kansas City.

On motion of Dr. Cochrane, a committee consisting of Drs. Brock, Lanphier, Wren, Stormont and Wilder, was appointed to report at the next meeting a plan for medical reform and the suppression of quackery.

On motion of Dr. Neeley, the Transactions of the Kansas State Medical Society was ordered published in *The Medical Herald and Journal of Pharmacy*, and that a fair compensation be allowed for the same.

The following is a list of members registered:

Daniel E. Jones, of Junction City; graduate of Rush Medical College, at Chicago, Ill., and Ohio Medical College, at Cincinnati; 33 years of age; married.

J. W. Brock, of Leavenworth; graduate of Maryland University; 41 years of age; married.

W. W. Cochrane, of Atchison; graduated at Louisville, Ky.; 59 years of age; married.

D. W. Thomas, of Leavenworth; graduate of Maryland University; 45 years of age; married.

James M. Linley, of Atchison; graduate of Ohio Medical College; 34 years of age; married.

A. H. Lanphier, of Atchison; graduate of New York City University; 41 years of age; married.

Geo. W. Holderman, of Paola; graduate of Jefferson Medical College, at Philadelphia; 41 years of age; married.

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S. F. Neeley, of Leavenworth; graduate of the University of Pennsylvania; 30 years of age; married.

Benj. Woodward, of Wyandotte; graduate of Rush Medical College; 60 years of age; married.

H. S. Roberts, of Manhattan; graduate of Jefferson Medical College; 31 years of age; married.

D. B. Wren, of Paola; graduate of Rush Medical College, and Medical Department of Lind University; 32 years of age; married.

Frederick Speck, of Wyandotte; graduated at Philadelphia; 52 years of age; married.

Bryant Grafton, of Wyandotte; graduate of the Medical College of Ohio; 35 years of age; married.

C. P. Lee, of Osawattomie (State Insane Asylum); graduate of the Medical Department of the University of Michigan; 42 years of age; married.

Thomas J. Eaton, of Baldwin City; graduate of the University of Michigan; 30 years of age; married.

C. H. Moore, of Parksville; graduate of the University of Pennsylvania; 29 years of age; single.

This completes the number with the exception of Dr. Logan, of Leavenworth, who was not present when the list was prepared.

On motion, the convention adjourned to meet at Leavenworth, on the second Tuesday in April, 1872.

REPORT OF COMMITTEE ON SURGERY.

BY J. W. BROCK, M. D.

[Read before the Kansas State Medical Society.]

I can add nothing new to what has already been written on surgery and surgical diseases. I shall therefore content myself, and at the same time do as much toward satisfying the minds of the profession present, by reporting cases, with treatment of same, which have come under my immediate observation.

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Case 1. A little girl, ten or eleven years of age, was attacked with acute pain in her right leg. One of nature's monstrosities—a homœopathic physician—was called to see it, and pronounced it rheumatism; attended some time with no benefit to the patient—doctor financially improved. One of God's noblest works—an allopathic physician—with a well-balanced brain, and a heart full of human kindness, was called, and pronounced it hip disease. He advised a course of treatment which was sensible. The parents became dissatisfied with his treatment, without just reasons, and called another doctor. He, in his turn, was discharged, and others called and discharged until they struck me. I found an ulcer on the tibia, about two inches above the inner malleolus, one near the trochanter major, and another on the dorsum of the ilium. I could think of nothing but tonics, good diet and fresh air, as I was satisfied that there was necrosed bone about the head of femur, and perhaps the same would be the condition of the other parts above mentioned in a short time. I ordered the ulcers to be kept clean, with plenty of out-door exposure—leave the case to nature for a short time, and pay her bills promptly. In a short time another ulcer made its appearance about one-and-a-half inches below the tonchanter major on the outer aspect of the thigh. It had been there about two weeks when I was called to see the case, and on probing it, found what I now present to you—the head of the femur, as it is want to be found in the acetab ulum. I removed it with but little trouble. I consider this one of nature's successful resections of the head of the femur. I was somewhat surprised to find it emerging at this point. The child is improving as far as the hip is concerned; the ulcers of the hip have healed, the ankle joint is a little stiff from the inflammatory action, but, altogether, the case has improved beyond my most sanguine hopes; she now walks without crutches, but there is shortening of the diseased limb.

Case 2. I was treating a young man for a long standing gleet—the most of them are of this kind—and I had tried all the usual and unusual remedies with little effect. My patient became desperate, so did I. I gave him a No. 8 gum catheter to introduce into the urethra, showing him how it was done,

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He went to his room and succeeded in introducing it, and also succeeded in breaking off pretty nearly two inches of the catheter of his bladder. He came to my house soon after it had occurred, and told me what had happened. I advised him to keep quiet until morning—more than I could do with two inches of a No. 8 gum catheter in *my* bladder. I called the next morning and found that he had had a severe chill, which was followed by fever with a high bounding pulse; gave him suitable treatment to meet the indications. These symptoms passed off in forty-eight hours, leaving him comfortable. As long as he kept his bladder partly full of water there was not much trouble; but if he emptied the bladder he was immediately thrown into rigors, with fever and sick stomach. I had no instrument suitable to remove it, nor could I find one among my brother doctors. I sent to St. Louis and they sent me a straight instrument—one that might do to remove a calculis from a female bladder, provided you could see the stone before introducing the instrument. Drs. D. W. and M. S. Thomas assisted me in three or four unsuccessful attempts in trying to remove it with all the instruments we could command.

I sent him to Philadelphia, to Prof. Agnew, where I felt confident it could be removed, because, with the combined skill of Prof. Agnew and those with whom he might be associated, and the better facilities for procuring the necessary instruments for removing foreign bodies from the bladder, I felt safe in sending him there. I understood from the patient that the Professor made several unsuccessful attempts at removing it, and had almost determined to cut for it, when, by a successful effort on the part of one of the office students, the body was removed, much to the satisfaction of the patient and credit to the young professional gentleman who was so fortunate as to seize and remove it.

I propose in the future to try very effectually all gum instruments before introducing them into the bladder.

Case 3. A little boy, four years of age, was brought to my office presenting the following symptoms: The glands penis swollen with a discharge of a seropurulent nature, sore and acrid before and after making water; of a scrofulous diathesis;

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sores on the ears and face. I examined the parts carefully; there seemed to be sufficient quantity of skin to cover the gland; thought there might be a stone in the bladder; ordered soothing treatment for the present.

Next examination found it difficult to uncover the gland, and that the discharge came from the frenum, and about one-third of the prepuce which had been inflamed and adhered to the gland, obstructing the orifice of the urethra about one-half. In urinating the urine came in contact with the inflamed surface which gave rise to all the symptoms above enumerated. I circumcised and dissected off that portion of the adherent prepuce and inserted lint to separate the parts until they were healed, which required only a few days, and the child was well.

Case 4. A young man, twenty-six years of age, presented himself with congenital phymosis. I slit up the prepuce by means of a dissector and bistoury; took stitches in the mucous membrane and skin. The parts healed kindly, and the patient was much pleased at the result, as he was much alarmed at the hair-liped appearance of that (to him) valuable appendage, which he wished to have in a healthy condition, as he expected to marry in a short time.

My friend, Dr. M. S. Thomas, advises in these cases of congenital phymosis, with sufficient integument to cover the gland, to slit up the mucous membrane of the prepuce, and not the integument. I think the suggestion a good one, but have never operated in that way.

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MINUTES OF THE ANNUAL MEETING OF THE KANSAS STATE MEDICAL SOCIETY.

LEAVENWORTH, April 9, 1872.

The Kansas Medical Society met in Woolf's Hall, Leavenworth, Tuesday, April 9th, 1872, and was called to order at 10 o'clock A. M., by the president, Dr. D. C. Jones.

The following members were present, viz: Drs. A. Newman, T. Sinks, C. A. Logan, D. W. Stormont, L. P. Stiles, S. W. Jones, J. L. Wever, C. C. Shoyer, J. J. Crook, Will E Turner, S. Phillips, D. W. Thomas, J. M. Lindley, W. W. Cochrane, J. W. Brock, A. H. Lanphier, D. C. Jones, S. F. Neeley, A. M. Wilder, R. Morris, M. S. Thomas, D. W. McCabe, G. W. Haldeman, F. Speck, H. K. Kennedy, C. P. Lee and W. B. Carpenter.

The minutes of the last meeting were read by the secretary, and approved.

Drs. Cochrane, Wilder and Neeley were appointed to fill vacancies on the Board of Censors.

The following gentlemen were proposed for membership, and their names referred to the Censors, viz: Drs. M. O. Baldwin, of Wamego, A. C. Van Duyn, of Leavenworth; J. H. Stuart and F. D. Morse, of Lawrence; and G. R. Baldwin, of Ft. Scott; also the name of Miss Francena R. Porter, M. D., of Lawrence.

On motion of Dr. Sinks, the society adjourned to meet at 1½ o'clock.

AFTERNOON SESSION.

The society met as per adjournment, the president, Dr. Jones in the chair.

Dr. Thomas, chairman of the Board of Censors, reported favorably on the applications of Drs. M. O. Baldwin, A. C. Van Duyn, G. R. Baldwin, J. H. Stuart and F. D. Morse, and recommended their election.

On motion of Dr. M. S. Thomas, the case of Dr. F. D. Morse was referred back to the Censors, with instructions to inquire into the reports of certain irregularities in his professional conduct, and report during this meeting.

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The other gentlemen recommended were then elected members of the society, and, being present, signed the constitution. In the case of Doctoress F. R. Porter, the Censors submitted the following resolution, viz:

Resolved, That the Board of Censors reported favorably on the credentials of Dr. Francena R. Porter, if the standing of the Woman's Medical College, of Philadelphia, of which she is a graduate, be recognized by the regular profession.

Dr. Newman moved that the report be received and that Dr. Porter be elected a member of this society. After a lengthy discussion, the vote was taken and stood: yeas, 20; nays, 5.

On motion of Dr. D. W. Thomas, the election was made unanimous.

Doctoress Porter was then introduced and signed the constitution.

The secretary made his annual report, in which he stated that the L., L. & G. R. R. was the only one which had granted reduced rates of fare to the members attending this meeting of the society.

On motion of Dr. Sinks, the thanks of the society were tendered to the officers of the L., L. & G. R. R. for this favor.

Drs. Newman, Haldeman, Cochrane, Brock and Speck, were appointed the committee on nominations.

The treasurer submitted the following report, viz:

LEAVENWORTH, April 9th, 1872.

Amount remaining in hands of treasurer at the annual meeting held in Wyandotte, April 7, 1871..		$ 80 00
Amount received since that time for fee and dues..		65 00
Total on hand,.....		$145 00
By amount paid secretary for postage and stationery in 1870	$ 3 00	
Amount due proprietors of Medical Herald for publishing proceedings of the society	112 50	
Amount remaining in hands of treasurer.....	29 50	
		$145 00

J. W. BROCK, *Treasurer.*

On motion of Dr. Linley, the report was referred to an auditing committee, consisting of Drs. Sinks, Wever and M. S. Thomas.

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REPORTS FROM STANDING COMMITTEES IN ORDER.

The report from the committee on practical medicine, Dr. Bryning, chairman, was called.

No report.

Report from the committee on surgery called for. Dr. Brock, chairman, read the report, which was referred to the committee on publication.

Report from the committee on obstetrics called for. Dr. D. W. Thomas, chairman, read the report, which was referred to the committee on publication.

Report from the committee on materia medica called for.

No report.

SPECIAL COMMITTEES IN ORDER.

Recent Advances in Physiology.—Dr. Newman. No report ready, but asked to be continued.

Excused and continued.

Climatology.—Dr. Sinks. Report read and referred to the committee on publication.

Drs. A. G. Abdelal, of Lawrence, and A. R. Minnis, of Topeka, were proposed for membership. Referred to the Board of Censors.

On motion of Dr. Cochrane, the society adjourned to meet in the rooms of the Board of Education at 7½ o'clock, this evening.

EVENING SESSION.

The society met as per adjournment, the president, Dr Jones, in the chair.

The Censors reported favorably on the applications of Drs. A. G. Abdelal and F. D. Morse, of Lawrence, and A. R. Minnis, of Topeka. They were elected and signed the constitution.

Dr. Newman, from the committee on nominations, submitted a report, which was amended and adopted as follows:

OFFICERS.

President.—Dr. W. W. Cochrane, of Atchison.

1st Vice-President.—Dr. J. L. Weaver, of Leavenworth.

2d Vice-President.—Dr. R. Morris of Lawrence.

Secretary.—Dr. D. W. Stormont, of Topeka.

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Assistant Secretary.—Dr. G. R. Baldwin, of Ft. Scott.

Treasurer.—Dr. J. W. Brock, of Leavenworth.

Board of Censors.—Drs. M. S. Thomas, J. M. Linley, A. Newman, G. W. Haldeman and D. C. Jones.

REGULAR COMMITTEES.

Practical Medicine.—Drs. G. W. Haldeman, S. W. Jones and A. H. Lanphier.

Surgery.—Drs. M. S. Thomas, W. J. Burge and D. W. McCabe.

Obstetrics.—Drs. D. W. Stormont, Francena E. Porter and F. Speck.

Materia Medica.—Drs. W. B. Carpenter, R. Morris and H. S. Roberts.

SPECIAL COMMITTEES.

Recent Advances in Physiology.—Dr. Albert Newman.

Recent Advances in Chemistry.—Dr. T. Sinks.

Infantile Diseases.—Dr. S. F. Neeley.

Indigenous Remedies.—Dr. J. V. Bryning.

Concentrated Remedies.—Dr. H. K. Kennedy.

Venereal Diseases.—Dr. J. W. Brock.

Uterine Hemorrhage.—Dr. A. M. Wilder.

Fort Scott was selected as the place, and the second Wednesday in April, 1873, as the time for holding the next annual meeting.

Drs. Stormont, Brock and Wever, were appointed the committee on publication.

The report on Mercurial Preparation, by Dr. Burge was read by the secretary. Referred to the committee on publication.

The committee to audit the report of the treasurer, submitted the following:

The undersigned would respectfully report, that they have examined the report of the treasurer, and find it correct. They, however, are of the opinion that the charge for the publication of the proceedings of the society is greater than the finances of the society will warrant, in their present condition. Respectfully submitted.

T. SINKS,
J. L. WEVER,
M. S. THOMAS,
Auditing Committee.

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The report was adopted.

Dr. Wilder, committee on medical reform and the suppression of quackery, read his report. Referred to the committee on publication.

On motion of Dr. Baldwin, Drs. Linley, Neeley and Cochrane were appointed a committee to investigate the charges of the publishers of the *Medical Herald*, for printing the proceedings of the last meeting of the society.

Dr. Sinks, in behalf of the officers of the Kansas Central railroad, tendered the society an invitation to an excursion on their road, to-morrow morning at 9½ o'clock.

On motion of Dr. Linley, the invitation was accepted.

Dr. Lanphier, committee on infantile diseases, read his report. Referred to the committee on publication.

On motion of Dr. Brock, the society adjourned until to-morrow morning at 7½ o'clock.

WEDNESDAY, APRIL 10TH.

The society met at 7½ o'clock in Woolf's Hall, the president Dr. Jones, in the chair.

Dr. McCabe introduced Dr. Schauffler, of Kansas City, to whom the courtesies of the society were extended.

The committee appointed to investigate the charge for publishing the proceedings of the last annual meeting, submitted the following report:

We, the committee, in accordance with the resolution passed at the last meeting of the society, at Wyandotte, recommend the society to pay the bill of the publishers of the *Medical Herald*.

J. M. LINLEY,
W. W. COCHRANE.

The report was adopted.

On motion of Dr. Cochrane, amended by Dr. McCabe, it was ordered that twenty-five dollars be paid for publishing the proceedings of this meeting in the *Medical Herald*.

On motion of Dr. Wever the society took a recess until 11 o'clock, to take an excursion on the Kansas Central Railroad.

At 11 o'clock the society reassembled, the president, Dr. Jones, in the chair.

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Dr. Cochrane offered the following resolutions, which were adopted, viz:

Resolved, That the thanks of this society are hereby tendered to the officers of the Kansas Central Railroad for the delightful excursion so generously furnished us this morning.

Resolved, That after a careful examination and investigation, the diagnosis of this society is, that the road is admirable in construction, that the coaches are sumptuous and convenient, that the officers are broad in guage, liberal and large-hearted; and the prognosis is, that the enterprise will not only be a grand success, but that it will be the means of developing, with great rapidity, the abundant resources of our beautiful State.

The president then delivered his valedictory address, which was referred to the committee on publication.

On motion of Dr. Cochrane, Drs. Logan, Newman and Linley were appointed a committee to report at the next meeting on the best method of suppressing quackery.

On motion of Dr. Cochrane, a committee, consisting of Drs. Sinks, Stormont and D. W. Thomas, were appointed to draft a bill for the registration of the births, marriages and deaths, and secure its passage by the next legislature.

On motion of Dr. D. W. Thomas, a committee was appointed consisting of Drs. D. W. Thomas, McCabe, G. R. Baldwin, Wilder and Cochrane, to secure the enactment of a law granting reasonable fees to physicians appearing as expert witnesses before courts of justice.

Dr. Neeley preferred the following charges:

I charge Drs. Eli Lewis and W. W. Rodgers, of Topeka, with affiliating with a disreputable member of the profession, and giving their influence to a bogus medical college for the purpose of self-advertisement, thereby violating the code of ethics; therefore, I would recommend that they be expelled from this society, as being unworthy of membership.

Ordered to be spread upon the minutes, and the accused notified by the secretary of the nature of the charges, and that they will be considered and acted upon at the next annual meeting.

On motion of Dr. Logan, the president and secretary were instructed to receive bids from the proprietors of the *Medical Herald* and of the *Kansas City Medical Journal*, for publish-

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ing the proceedings of this meeting, and contract with the lowest bidder.

On motion of Dr. Thomas, the thanks of the society were tendered to the owners of Woolf's Hall, for the use of the hall for this meeting free of charge.

On motion of Dr. Cochrane, the thanks of the society were tendered the physicians of Leavenworth for their courtesy during this meeting.

On motion of Dr. Sinks, the society adjourned until 2½ o'clock.

AFTERNOON SESSION.

The society convened at 2½ o'clock, the president, Dr. Jones, in the chair.

On motion of Dr. Cochrane, the following gentlemen were appointed delegates to the meeting of the American Medical Association, to be held next year, viz.:

Drs. D. W. Stormont, J. M. Linley, A. M. Wilder, D. W. Thomas, W. W. Cochrane, G. R. Baldwin, C. P. Lee, A. Newman, J. W. Brock and D. W. McCabe.

On motion of Dr. M. S. Thomas, each delegate is authorized to appoint his own alternate, in case he cannot attend.

On motion of Dr. Brock, the secretary was instructed to make a list of those members who are in arrears for dues, and report at the next annual meeting.

On motion of Dr. D. W. Thomas, the following gentlemen were elected delegates to the Missouri State Medical Society for the session of 1873, viz.:

Drs. M. S. Thomas, R. Morris, W. W. Cochrane, H. K. Kennedy, C. P. Leland and L. P. Styles.

On motion of Dr. Newman, the society adjourned to meet at Ft. Scott, the second Wednesday in April, 1873.

D. W. STORMONT, *Secretary.*

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REPORT OF COMMITTEE ON SURGERY.

BY J. W. BROCK, M. D., LEAVENWORTH.

I present the subject of cancers for your consideration. It comes within the domain of surgery. Since our last meeting I have had an opportunity of examining some cases of cancer, both on the living subject and cadavera.

What is the origin of cancer? Does the disease consist solely in a local change of structure, or is it the local determination of a general morbid condition of the blood, or are the blood and the tissue equally interested in its formation? It is not surprising that surgeons have come to regard cancer from the first as a constitutional or blood disease. Indeed it is no easy matter to account for all we observe in cancer without adopting some such view. On the other hand, there are many facts which oppose themselves to it, and there are other modes of accounting for some of these characters which most strongly support it. It may seem that, practically, the question is not worth discussing.

If cancer be a constitutional disease, we must strive to find some corrective to the constitutional taint. And we should try in that case to determine whether the local disease is the result of some error in the organizing or nutrient function of the tissues, or whether it is the actual deposit of some poison previously existing in the blood. Then we might have reasonable hope of being able to do what as yet has proved beyond our reach—to cure or even modify cancer by general treatment. But if cancer be, at any period of its existence, a purely local disease, we should hope that by earlier and more complete removal, better and more generally permanent results may be obtainable than we can at present boast of. Virchow and many German pathologists maintain that cancer is not to be regarded as a blood disease, although a constitutional tendency may exist. They claim that cancer and some allied diseases partake more of the nature of parasitic disease than of the results of previous blood poison.

I cannot suppose that there is any material in the body which must work itself out of it, and which selects this situa-

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tion, or that, indiscriminately; or, perhaps, makes use of one in preference to another from finding a tissue prepared for its reception. I cannot suppose that there are various kinds of this morbid material—one breaking out as scirrhus, another as epithelioma, etc. If the cancer poison be of one kind only, we should surely find it more frequently appearing in the same subject, at one time as encephaloid, at another as scirrhus, at another as epithelioma, or some other form of malignant disease. Yet this is seldom the case, though it does occur.

Let us consider some of those special characters which have led to so firm a belief in the blood origin of the cancer. Perhaps that which seems to be the most conclusive evidence to the large majority of those who hold this view is the almost constant recurrence of the disease after removal. Entire and permanent immunity does occur, but it is rare. In such cases it would be said, first, that the blood-poison having worn itself out, or been eliminated by the formation of a tumor, no further development took place when the local tumor was removed; or, second, that two conditions were necessary for the formation of cancer—one, the blood-poison, the other a fit state of tissue in which it might manifest itself; and that a tumor having been removed, there remained no fit nidus for its reproduction.

These cases of permanent cure after operation are, we may admit, exceptional. The more common event is that, after removal of a tumor, in favorable cases there is immunity for a longer or shorter period—some months or some years. Is the blood diseased during this time? Are the other tissues free from disease? It is most important here to consider the mode of recurrence of the disease.

It is a recognized fact that cancer rarely returns either in an organ corresponding to its original seat, or indeed in any organ which is the usual seat of the primary disease.

A cancer in the breast rarely returns in the opposite breast An operation may so change the tissue of the part operated on as to make it a fitting seat of future disease. But this will only apply to those cases in which the return is in or around the cicatrix, not to those where distant lymphatic, or lungs, or other internal organs are affected, the cicatrix remaining

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sound. And still the difficulty of accounting for the fact that, with a cancerous state of blood existing for a length of time, no recurrence takes place in the organs most prone to the disease would remain the same.

The influence of local condition must be at least more powerful than that of blood. So much is said and written about cancerous cachexia, that cachexia comes to be regarded as a necessary associate of cancer. Hence we too frequently rely upon it as a means of diagnosis, and conceive that a disease cannot be cancerous because the patient's health is good, whereas, in reality, cancer, especially in early and middle life, fasten itself often upon those who are well nourished and florid, who seem the most healthy and so give promise of life.

Tumors are discovered and allowed to grow till too late for removal, the patient, or perhaps the medical attendant, considering that there was nothing of consequence in them because there was no appearance of cancerous cachexia. In reality, however, the fact that a tumor is developed in the breast of a person in otherwise sound health, and over thirty: a tumor painless, and only discovered when already of some size, is enough to justify a more than suspicion that it is a cancer. If cancer should ever be removed by operation, I suppose few will deny that the sooner it is done the better. But what chances of successful removal are daily thrown away owing to the presence of those very conditions which should most surely excite suspicion in the mind of the surgeon. It may be asked what is practically gained supposing these views are established? Little or nothing, I admit, with our present knowledge, except this, that we should know the direction in which we should work. In the first place, it is clear that if removal be the practice adopted—and I believe that in all fair cases it is the proper one—the earlier the operation is done the better. This I consider a positive rule It is true that very early operations are very often very unsuccessful, and late ones very successful. But the tumor will often tell us why. When you remove a tumor that is highly vascular and juicy, and the tissue around containing minute dark specks of cancer, such tumors would be very likely to return. The most successful results follow if the parts are widely removed.

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I will report a few cases:

Case 1.—A patient of Dr. Thomas, aged about 60 years—cancer of the pyloric orifice of the stomach. I saw him before death and learned something of the history of the case. Assisted at the *post mortem.* The most striking peculiarity of this case was the absence of acute, lancinating pain. The diagnosis was correct. We suspected atrophy of the liver, but it did not present any appearance of atrophy.

Case 2.—Treated by Dr. Stormont, of Topeka, and other physicians. My impression is that Dr. Stormont diagnosed it cancer; others had arrived at a different conclusion. Dr. Thomas treated him a short time before his death. This was rather an obscure case. He presented some of the symptoms of ulceration of the stomach, with splenitis and dislocation of the latter organ. *Post mortem* showed cancer of the stomach.

Case 3.—A farmer about 45 years of age. Some twenty years before I saw him he had received an injury of the face, the extent of which I have forgotten. He recovered with the exception of a discharge from the right nostril. This discharge came from the antrum, in my opinion. At intervals he had severe neuralgic pains. About one year ago I saw him at Dr. Wever's office in consultation. He had been suffering agonizing pain in the right side of the face and head for some time. After suffering for some time a swelling made its appearance immediately under the right eye. Pus was suptected and an incision was made into the swelling. Dr. Weaver and myself probed the parts and examined them carefully, finding some softened bone, which gave the impression of caries. From some of the symptoms present, we entertained doubts as to its benignant character. In about two weeks we were called on to operate, as we told the patient at the time that an operation would have to be performed. Dr. Weaver being engaged, Dr. M. S. Thomas, and Dr. Wood, the family physician, saw the case with me. During this time there had been a rapid growth of nodular tissue of the right side of the face, extending downward to the inferior maxillary. The case was no longer an obscure one, as it now presented every indication of cancer. I operated by making an incision extending from the inner angle of the eye to the middle of the ear of the

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right side. Another incision extending from the first named point to the angle of the mouth, turning back the flap and removing all the cancerous tissue and diseased bone that could be detected. The patient improved and done well for a month, but in a short time the disease returned with renewed violence, and soon destroyed his life.

Case 4.—Two negroes became pugilistic, one struck the other a heavy blow with a weight on the upper lip, directly under his nose, which of necessity came in contact with his lip. The lip was mashed into a black jelly; his front teeth were caved in. He replaced his teeth, and was able to masticate with them in a short time, although they remained loose to some extent. This was three years ago. The teeth gave him occasional pain, and in time there was a fungus growth on the gums. I saw the patient first, about September of last year; examined the parts, and was not entirely satisfied as to the nature of the difficulty. I did nothing at the time; was informed by the patient that some portions of the fungus growth had been removed by another physician. I explained to him about the nature of the difficulty and what the operation would be. He left, and I saw him no more for two months. When next I saw him, I felt confident that it was a cancer, involving the injured parts and also the superior maxillary and bones of the nose. The mouth was rapidly filling up with fungus. He consented to an operation. Drs. M. S. Thomas and Van Duyn assisted. I removed six front teeth and then made a section of the superior maxillary. Here we rested.

After carefully surveying the ground, we concluded not to interfere further, as another operation would necessitate the removal of the whole of the superior maxillary, nasal bones, and, in all probability, his eyes — then with no prospect of a permanent cure. We used no chloroform. In a very short time the mouth began to fill again with the nodular tissue, a part of which I again removed. It is surprising how very rapidly it grows. I consider this case one of simple injury—of a local character, one that would have insured success by an early operation. What gave rise to cancer in this case, I am sure I can't tell you. I know there was a constant source of irritation; but why not necrosis or caries instead of cancer?

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I examined the juices of some of these cases, and others examined them—under the microscope—but with no satisfactory results.

REPORT OF COMMITTEE ON OBSTETRICS.

BY D. W. THOMAS, M. D., LEAVENWORTH.

In obedience to established custom, I beg leave to submit to your consideration a few points in connection with the science of obstetrics. In thus trespassing on your time, I am sure your expectations cannot be raised to the point of receiving anything startling or novel, for since our greatest of grandmothers lured by inordinate curiosity, or by a laudable spirit of inquiry into a knowledge of good and evil, to touch that which by the laws of Omnipotence was forbidden, and thereby brought on all future mothers the penalty of her frailty, the process of labor has been attended with pain produced by the contraction of the muscular fibres of the uterus, in its effort to expel its contents. From that time to the present, no efforts of science have availed to set aside the decrees of Providence, by establishing any other, or more easy method of delivery, nor have they succeeded in evading the penalty to those who eat the apple, forbidden or unforbidden.

The science, then, is made up of the knowledge acquired by a careful observation of the fixed and invariable laws of nature, as brought into requisition in the mechanism of labor, as based on the accumulated experience and observation of those who have given the subject their attention through successive ages, and have carefully transmitted their knowledge to their successors, so that the developments of the science up to the present day, are but the discovery, from time to time, of certain laws which have always existed, but which have awaited some more penetrating intellect to unearth them and acquaint the medical public with the result.

Advancement and improvement are, therefore, but development by discovery (not invention), aggregating a whole, which

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we may call the present advanced state of the science. At different periods in the past, the then state of the science has been lauded as the acme of perfection, but which were again destined to the shades of the past, by the discovery of other laws, new to observation, the practical application of which is to constitute improvement. It is apparent that the ingenuity of scientific men has been taxed from time immemorial to devise some means by which our race may be perpetuated without pain. This, however, has been successful only by entailing other pains and consequences, which largely counterbalance the pleasant escape from the sufferings of the accouchment proper.

These remarks are applicable only to those conditions where no laws of nature or hygiene have been violated previous to parturition, where a normal condition is supposed to exist in the natural relation as to mother and fœtus such as not to materially interfere with a normal labor, as to duration of suffering and physical capacity.

It is mainly in anomalous labor and its attending circumstances, preceding, present and subsequent to, which can command our most serious consideration, and call into use our decision and deliberation, that our efforts to ameliorate the condition of woman, whom circumstances have placed under the ban, should continue to be used, and that much *can* be done by the experienced and skillful obstetrician to limit the sufferings and ward off inevitable results, without such interference, none will deny. It therefore becomes a matter of mature judgment to determine how far nature, unaided, can accomplish the desired end, and yet the patient retain a sufficient fund of recuperative energy to secure a fair convalescence. To determine, with a fair degree of accuracy, the comparative diameters of fœtal head and pelvic canal, when the presentature and other circumstances are ordinarily favorable, when the contractions are regular and sufficiently strong, when to administer restoratives to sustain tired or exhausted nature, which, if pressed too far, may end in inertia, when to aid the expulsory efforts by medicinal or instrumental interference. To determine promptly and early the position of the fœtus, and what change, if any, shall be made in the presen-

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tation, while the condition of the patient will warrant such mechanical aid, for there is a point (all must admit) beyond which there is no rallying, when the "vis medicatrix naturæ" becomes impotent.

It is a safe rule, not to resort to artificial measures when the diameters of the pelvis are found to be ample to admit the passage of the fœtal head, the uterine contractions firm and regular, the os uteri dilating or dilatable, the presentation such as to permit the passage without change, and the physical prostration of the mother not beyond the ordinary fatigue. So far we may consider what is known as "meddlesome midwifry" out of the question. If, however, this favorable combination of circumstances do not exist, it becomes an imperative duty to correct, as far as possible, any unfavorable condition, by adopting such measures as will so change the relative condition of things as to accomplish delivery most easy to the mother and safe to the child.

With these general remarks it may be well to consider some of the usual expedience—a resort to which we are sometimes called upon, but with which you are all no doubt familiar. There is a class of cases which claim attention when there is a condition of natural labor, but retarded by slight, inefficient uterine contractions, at long intervals, known as protracted or tedious labors. The question will arise, should we use ergot, and under what circumstances is it admissable? Should we use it without regard to the dilated or dilatable condition of the os uteri? One of the most essential conditions, in our opinion, for the use of ergot, is a partially dilated or delatable os. At what period in the progress of labor should the membranes be ruptured? Again the judgment is exercised, and the delivery facilitated by puncture, when they can no longer be useful as a dilating means. There can be no doubt but that too early rupture, or too long a continuance of them entire, has often greatly retarded the progress of delivery. The plan of distending the perinæum by the hand or fingers, during the pain, is believed to greatly facilitate labor, by increasing the strength of the uterine contractions. The idea was suggested by the strong expulsory pains during the latter stage of labor, when the perinæum is put on the stretch by

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the pressure of the fœtal head. I have frequently tried this expedient with decided success. The experiment costs but little effort, and is well worthy of a trial.

The appeal is frequently made to you for the use of anæsthetics, of which chloroform is the principal agent. The use of this agent, at one time, became very popular during labor, so much so, that it was the uniform practice of many justly eminent practitioners, but whose judgment have since found reason to abandon its indiscrimnate use: while with others, who are less "like Cæsar's wife," the suspicion is fair that the incentive has often been to render themselves more popular with that class of patients, and thereby secure to themselves the profits of practice which their more *conscientious* and *honorable* fellows would otherwise attend. These motives are unworthy the dignity of the professional gentleman. It, however, cannot be denied, that under circumstances of great suffering, and extreme nervous irritability, and spasmodic hyperæsthesia, of the uterus and appendages, the cautious and moderate use of chloroform, pressed only to its primary stage of anæsthesia, is not only admissible, but often imperitively demanded. Used in this way its toxical effect on the impussible nervous organization (which is known largely to predominate over other organizations) of the child, would probably not prove as serious as the otherwise unavoidable prolongation of the labor, and, possibly death of the mother by shock, engendered by the intensity of her pain. You will then have to take the lesser of the two evils, and avoid, if possible, any direct agency in the destruction of either. So much, then, for the less grave condition, natural labor, interrupted only by some fault in the nervous organization of the patient. We are called upon to meet and surmount a grave set of troubles, those which call into requisition the sterner elements of our physical, mental, and moral constitution, viz: those which require manual interference, or the use of obstetric instruments. Of this class, the most common are those which call for the use of the forceps. The necessity for the use of forceps is frequently forseen long before so revolting a proposition can be presented to the patient and her friends, and we are often induced to wait, in the hope that some extraordinary

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effort may extricate us from our dilemma, and spare her and them the necessity of such apparently formidable a resort. When, as an instance, we have a case under our care, where the fœtal head is engaged in the upper strait, and which has for a long time, resisted the most powerful contractions, without any apparent dislodgement, there would probably be no question as to the propriety of resorting to the use of the forceps, with the view to diminish the calibre of the head, as well as to assist the expulsory efforts of the mother. The operation cannot be regarded other than perfectly safe, both to mother and child. So much so, that were there indisputable evidence of vitality in the child at the commencement of the operation, I should have very litte apprehension of death by the operation. The question as to how soon the forceps should be resorted to, is often an embarrassing one, the settlement of which, however, would depend on the condition of the mother. When evidence of approaching exhaustion was apparent in the mother, even though the calibre of the pelvic canal and fœtal head were not greatly disproportionate, there need be but little hesitation about the use of them. Why should we suffer our patient to approach so nearly the confines of death by exhaustion, when we have the means of prompt relief and rescue so easily available? In the use of the term exhaustion, it is not to be understood as the mere fatigue usual in all cases of labor, for, as a rule, the vital energies are most fully aroused during the last throes of labor, even after very great fatigue is experienced earlier in the progress of the labor.

The version of the child would be resorted to if we had the presentation of an arm, or a shoulder, or face, or side, or back, but would it be admissible when there is a natural presentation of the head, with a preternaturally contracted pelvis in the mother? On the principle that the dimunition of the calibre of the fœtal head will be more readily effected by the pressure being made from below upward, or commencing at the base of the skull, admitting of the more ready lapping of the cranial bones, than by commencing the pressure from above, thereby leaving the greater bulk of the brain at the base, to be forced last into the compressed portion of the space,

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towards the vertex? This line of argument has been advanced and acted upon. It has been demonstrated in a case in point, occurring in our own practice. It may be argued that if the head can be compressed sufficiently in this way for delivery without mutilating the child, why could not the forceps be used for the purpose? The argument would be a good one, if the head were sufficiently engaged in the upper strait to prevent its expansion in one direction, while you compress it with your forceps in another. In the case above referred to, I tried the long forceps and could readily seize the head, but could not force the head to engage in the bony circle. So my forcep operation proved an utter failure, and success was only attained by the version and subsequent use of the blunt hook in the mouth of the child. I will here take occasion to refer to the fact that I have been called on to perform an obstetric operation on the above patient four times in as many consecutive years. In the first confinement, I found she had been in charge of a mid-wife during the previous twenty-four or thirty-six hours. The feet and body of the child had been expelled about six and and a half hours previous to my arrival, and that the complete delivery had been promised every fifteen minutes during the afternoon. A medical gentleman of excellent standing, who had been previously called in, ascertained the physical impossibility of natural delivery, had me called to his aid. All the force which I was able to exert with my two fingers in the mouth of the child failed to move the locked head. The blunt hook was resorted to, and delivery effected. Child dead, of course. In the second case, the same physician was in attendance through twenty-four or thirty-six hours of contractions, amounting to violence, which only succeeded in engaging the head in upper strait. Delivery was effected in this case by the use of the long forceps. The third case was the one above referred, when the version was used after failure with forceps. The fourth case was delivery of a putrid child by turning, the presentation left arm twisted over the scapula. The natural diameters of the bony canal in this woman does not exceed two and three-quarters to three inches. The advice given, and repeated at each recurring pregnancy, has been to allow premature labor to be induced at the earli-

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est period of viability in the child, as her only possible chance of giving birth to a living child.

Pendulous abdomen often proves a serious obstacle to successful natural labor. I am not aware that much importance is attached to it by writers on the subject, yet I am confident that labor is at least greatly retarded. Two cases which have proven disastrous under our observation during the past year, have led us to give this difficulty more attention than we have hitherto done. In the one case, successful delivery of a dead child was with very great difficulty effected by the long forceps. In the other, the result was more unfortunate, as mother and child succumbed. The long forceps were attempted, but failed, as all the force which could be used but drew the child more tightly against the pelvis. The turning was finally resorted to and delivery effected after much difficulty. But, by this time, the mother was borne beyond the point of recuperation, and died about six hours after delivery. Each of the above women had previously borne a number of children, and had been subjected to hard labor over the wash-tub, and I had attended each of them in previous labors, which were attended with no untoward circumstance. In each of the cases, the weight of the abdomen rested nearly on the anterior surfaces of the thighs, thus evidently binding the uterus in such manner as to render the force of the uterine contractions ineffectual, by the abrupt angle which the child must make in its passage. Protections against such a condition we think could be had by the adoption of a firm bandage a few months before labor, relieving the relaxing muscles of the abdomen from the heavy weight of the gravid womb.

It may not be a matter of observation among our western practitioners generally, but has been with us, that the infants born to our people possess a more uniform vigor and development at birth than in older countries. That of the number of children born, more of them are large children at birth. If this be an admitted fact, how far may we attribute it to the fact that our population—male and female—is, to some extent, a "picked one." That the more hardy specimens of physical mahhood have ventured farther on our western borders, leaving the more enfeebled branches near the old homestead, and

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around the family trunk. This being the case, would it not argue the more frequent necessity for the use of obstetric instruments, particularly in primary cases? Such has been our observation, and we know no other general reason for it.

We cannot dismiss this subject without expressing the opinion, that in all cases which present an abnormal condition of things, or which requires an operation of any kind, a consultation with a professional brother should be called, not only to divide the responsibility in the case, but to render it more satisfactory to patient and friends, for, however strong the confidence in you may be, nothing can be lost by additional counsel. And in the selection of a consulting physician, the patient's and friend's wishes should be consulted, as far as compatible with the self-respect of the attending physician. This kind of professional intercourse tends greatly to soften down the rough places in the life of the physician, by way of removing envious feelings which too often embitter the minds of our profession, and in our intercourse in the sick room, the professional opinions given, one to the other, should be free, frank and unreserved, for certainly nothing so tends to cement the friendship of rival competition for reputation, as a free and honest interchange of professional ideas.

REPORT OF COMMITTEE ON CLIMATOLOGY.

BY TIFFIN SINKS, M. D., LEAVENWORTH.

It has been said that the best physician is "he who can bring to bear on his cases the greatest number of relations." It is therefore incumbent upon us to acquaint ourselves with all fact and conditions which indirectly, as well as directly, influence health, or are productive of disease, for even when so informed, the difficulties in diagnosis are only less abundant than those attending a rational therapeusis.

Dr. Holmes says, that "many of the patients that come to the physician never had any physiological right to live at all,

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and they come complaining that they are not in a condition to run ten miles within the hour, or fight the champion of the heavy weights for the prize belt. It has taken a dozen sickly generations to breed them down to constitutional invalidism, and they want a pill or powder to set them all right again." They are constantly engaged in a struggle for mere existence, and the best the physician can do is to patch up their frail machinery with the hope that it will run a little longer. For them the winters are too rigorous, the summers too hot, the breezes too strong, and the rains too abundant. They dream by night, and think by day of that mythical climate, that happy valley where there are no wintry blasts to chill the frame, and no ardent heat to relax the system, but where the god of day sheds his benignant rays tempered to their wants, and balmy breezes perpetually fan the flickering flame of their feeble life. Medicine being powerless to reconstruct their invalid frames, the only alternative left us is to find, if possible, some genial clime in which their comfort may be increased, and their lives prolonged.

It is said that the plains of Italy are white with the bones of invalids that have visited them under the mistaken notion that they would there find the garden in which they would grow and flourish. That we may not labor under the imputation of having sent those who sought our advise to die in a foreign land, it behoves us to determine, in as far as we can, the influence of climate upon the human system, and to acquire a general knowledge of the medical climatology of our own country at least.

Climate originally signified a slope or zone; the present definition, however, is much broader and more comprehensive, meaning "the condition of a place in relation to the various phenomena of the atmosphere, as temperature, moisture, wind, etc., especially as they affect animal life or man," being variously designated as hot, cold, temperate, humid, dry, insular, continental, maritime, uniform or variable, as any one or more of these conditions predominate.

Climate depends primarily upon the relative position and motions of the earth, with reference to the sun; and, secondly, upon the vertical configuration of the surface of the earth, and the relations of land and water to each other.

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From the first results the grand division of the earth into zones, and the great general currents of the atmosphere, and the oceans, from the poles to the equator, and from the equator to the poles.

From the second results the local differences of the climate in each zone, giving to each locality some peculiar feature in addition to the general characteristics common to a large district.

The latitude, altitude, temperature, direction and force of the winds, barometric pressure, and hygrometric condition of the atmosphere may be the same in two places, and yet the climate, in a medical sense, essentially different. The difference may depend upon drainage, or the condition of the soil, or both, so that in determining the climatic influence on health of any locality all the elements of the problem should be considered. The latter conditions, however, being largely within the control of man, and susceptible of modification, or even radical change by intelligent procedure, need not disturb our calculations.

"As there is no model climate, all that the physician's knowledge and tact will enable him to do is to select that situation which possesses the greatest advantages, and the fewest drawbacks, for the particular case he has in hand."

Any classification of climate must necessarily be an arbitrary one, but, for practical purposes, their division into exciting, bracing, relaxing, and sedative, will answer as well as any.

The diseases most likely to be cured or alleviated by the benign influence of change of climate, are the following: Pulmonary consumption, chronic bronchitis, asthma, the various forms of dyspepsia, chronic gout and rheumatism, obstinate neuralgia, and the general class formerly mentioned as having been bed-down to chronic invalidism.

There is a class of diseases under the general head of malarial which find their greatest expression in the tropics, gradually shading off toward the poles. The changing of the seasons which transfer a tropical temperature in the summer to the forty-second parallel north, and in winter a cold zone as far south as the Gulf of Mexico, exercised a marked effect upon

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diseases of this class in particular. So that, when we speak of the climate of any locality in reference to its effect upon particular diseases, the particular period of the year must also be taken into account. It would hardly be considered a judicious proceeding to advise a person whose condition required a relaxing climate to spend the summer in New Orleans and risk the hazards of succumbing to yellow fever. From the Atlantic coast westward to the Rocky mountains, the isothermal lines pretty nearly accord with those of latitude, and the amount of rain fall is substantially the same with the exception that from the Mississippi river westward, there is a gradual decrease in quantity. The differences, therefore, in the medical climatology of those districts in the United States lying within the same parallels of latitude are of a local nature, being chiefly dependent upon the character of the soil and the natural drainage. Where the soil is rich and the country but poorly drained, giving rise to a luxuriant vegetation, malarial diseases are peculiarly abundant and of a severe type.

The transition from the general to the special brings us naturally to the consideration of the climatology of our own State, a brief outline of which is all that the limits of this article will allow.

The State of Kansas lies between 37° and 40° north latitude, and between 94° 30 minutes and 102° west longitude. The eastern border is elevated 900 feet above the level of the sea, and gradually ascends toward the west at the rate of about three feet per mile. The surface is that of gently undulating prairie, interspersed with numerous streams, the margins of which are skirted by timber. The general direction of the principal streams is from west to east. There is an entire absence of lakes swamps, and marshes, and the streams seldom overflow the alluvial bottoms along their course. The naturel drainage of the State is most excellent, the descent of the beds of the streams being sufficiently great to produce rapid currents.

The measure of moisture precipitated in rain and snow for the year averages 31 inches at the eastern border of the State, and 24 inches at the western border, gradually decreasing toward the west.

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Observations at Fort Leavenworth for 35 years, give the following averages for the seasons: Spring months, 7½ inches, summer, 13; autumn, 7½, and winter 3½ inches. The precipitation of rain for the month of March, shows a small increase over that for either of the winter months. The quantities are doubled in April and again doubled in May, the mean maximum occurring in June and the minimum in January. The geographical position of the State, its proximity to the plains, its exposure to the cold currents from the Rocky mountains and the warm ones from the Gulf of Mexico, the conflict of these with the great normal west wind of the temperate latitudes, all combine to produce confusion from which it is almost impossible to eliminate anything that may be called general. However, the prevailing winds in the summer are from the southwest, south, and southeast; in the winter from the northwest, north and northeast, in the order of frequency as enumerated. During the spring and autumn these points are about equally represented. Direct east or west winds, except of a fitful character, and quite infrequent. The average force of the winds is greater than that for the Central States east of the Mississippi, and they are also more constant. The annual mean temperature at Leavenworth is 52°, at St. Louis 54°, at Cincinnati 53°, at Pittsburgh 51°. There is also quite as close a resemblance in the monthly mean temperature at these points, showing, as before remarked, that the isothermal lines pretty closely correspond with the lines of latitude.

From the foregoing the natural inference would be that the prevailing diseases in Kansas were similar to those of the States lying east of us, and between the same parallels of latitude. In a general sense this is true, but the general drainage of the country, the perosity of the soil, the purity of the atmosphere, and the fact that the winters are quite dry in comparison, all contribute to reduce in amount and virulence all the various malarial disorders, and in the winter particularly, inflammatory diseases, notable among which may be mentioned pneumonia and rheumatism. Adopting the nomenclature heretofore mentioned, the climate of Kansas would, we think, be very appropriately termed a bracing one, and without exaggeration, a very healthy one for this latitude.

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The foregoing is merely a brief review of the salient points of the subject under consideration, but it is perhaps as full as would be advisable under the circumstances. While the earth continues to revolve, the sun to shine, the winds to blow, the rains to descend, and the seasons to come and go in their regular succession, we must have ever present with us the instruments for our own destruction; much may be done, however, to blunt their keen edges, and to ward them from our vitals. Climate we cannot hope to change, but it is within the compass of human ability to obtain a knowledge of its varieties, of the diseases peculiar to each, and also to modify, to a certain degree, the baleful influence of some varieties as well as to avail itself of the benign influence of others.

REPORT OF COMMITTEE ON MERCURIAL PREPARATIONS.

BY WM. J. BURGE, M. D., OF ATCHISON.

It would be almost unpardonable in me to remain silent on this occasion, after allowing myself to continue a special committee for the last two years, and yet I am painfully conscious that what I shall now say will be utterly unworthy to be called a "Report on Mercurials." To compose a creditable report on this subject, one must have access to the world's great libraries, and carefully survey the vast field of medical literature from Paracelsus to the present hour. Not only so, but he must place himself in direct communication with the great lights of the profession and become familiar with the views and practice of those who are daily prescribing for the largest number of patients. From such sources of information, in consequence of my isolated position, I have been almost entirely debarred. But without encroaching further on the valuable time of this society by apologies for my shortcomings, I will respectfully present my homœopathic dose and leave you to judge whether there is any virtue in it or not. It

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must be apparent to the most cursory observer, that within ths last twenty-five or thirty years the practice of medicine has undergone very marked modifications. The lancet, for example, which within the memory of many of us, was in the hand of every physician, and in the arm of every patient, has finished its course and been laid away in the grave as quietly as many of its former victims. It is true, some profess to believe in its speedy resurrection, but I am inclined to think that the causes which led to its abandonment will continue operative to the end of time. Gradually it was discovered that more patients recovered who were not bled than of those who were, and this was true in every variety of disease. It took practitioners a long time to learn this, but they *have* learned it, so thoroughly that to-day we hear very little said about bleeding. With regard to mercurials, the observation and experience of every gentleman present will probably bear me out in the assertion that for several years past the best men in the profession have manifested (both by precept and example) a disposition to use less and less of these preparations. Men who were in the habit of prescribing calomel with a high-hand and with a stretched-out arm for almost every patient, now handle this potent remedy with gloved fingers, or only pick it up at all, as a dernier resort. The general and indiscriminate use of the drug has been fraught with so much disappointment that many physicians as well as patients have concluded that the little god in whom they trusted, is quite as likely to salivate as to save.

We do not deny that mercurials are powerful remedial agents, and in the hands of judicious practitioners may often be used effectively in certain morbid conditions, but that they are indispensable to the successful treatment of any disease, admits of the greatest doubt. In fact, the contrary has been demonstrated over and over again, and thousands of intelligent physicians in every part of the world are daily demonstrating that any disease which can be cured by mercurials, can as speedily be cured by other and safer remedies. Whether calomel or blue-mass exerts its beneficial or its baneful influence on the system, we are equally in the dark as to its *modus operandi*. We cannot tell why it should dissolve the fibrin

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of the blood, or set up inflammatory action in the salivary glands, but we see its poisonous effects quite as often as we do its curative, and this certainly ought to lead us to perfer other remedies, provided we can accomplish with them all the good effects of a mercurial, without any danger of the evil.

The cholagogue action of mercury has been called in question by high authority. The hitherto generally received opinion that it increases the secretion of bile, has been controverted, but whether it should be absolutely determined that its action increases or diminishes this secretion, is no argument either for or against its possible alterative power over a diseased liver. For my own part, I believe every purgative taken into the system acts as a cholagogue in greater or less degree, either directly or indirectly, immediately or subsequently. For instance, if one takes a dose of salts, he will have watery evacuations more or less tinged with bile, but after the salts have done operating, if he will take the trouble to inspect his next stool, he will find it decidedly bilious. I admit there is probably very great difference in the cholagogue power of different cathartics, but I think there is abundant evidence that they all possess some degree of this power. If we look at disease through the spectacles of nearly all the admirable writers of olden time, or even of those splendid modern authors, Watson and Wood, we shall find everything lovely in portraiture, and much that is delightful in theory, but when we come to scrutinize their therapeutics with a view to clinical application, we would fain lay aside their opticals, and look through "pebbles" of our own. And yet there are plenty of practitioners to-day, who have not advanced a single peg beyond the most sanguinary period of therapeutics. It is true that in deference to public opinion they have almost discarded the lancit, but still they are as far behind the times as ever with regard to medication. I met one of these antiquated routinists, not very long ago. He was laboring under an over-dose of the supporting treatment, which had the remarkable effect of making him very communicative, and extremely anxious that my patients should reap the full benefit of his wisdom and experience. "Dr. !" said he in an oracular tone, "no matter what diseases you are called to treat, give

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'em calomel, quinine and Dover's powder, and you can't miss it!" In justice to Kansas, I will simply say that the individual referred to does not reside in this State.

At the period when mercurials were introduced to the profession, chemistry was in its infancy, and the materia medica from which the formulas of the wisest physicians were drawn consisted of little else than a mass of crudities, incongruities, and absurdities. For the comparatively few remedies which are still counted worthy of a place in our pharmacopœa we feel duly grateful to those good old hard-working experimentors, observers, and accumulators, but we nevertheless rejoice in the light of the past few years which has discovered so much rubbish among the valuables, and so many valuables among the rubbish. May we not hope that with a little more sweeping and garnishing our armamentarum medicarum will be fit for the closest inspection. Let us beware, however, lest in our zeal to get rid of the chaff, we lose some of the wheat also. Rich as we undoubtedly are in remedies, we cannot afford to part with any of our treasures. If it can be proved that any preparations of mercury is more positively indicated in any given diseased condition, than other remedies with which we are acquainted, far be it from me to discourage its use. I do not arrogate to myself any superior knowledge on this subject, further than is implied in a statement of my convictions, based, it is true, on a comparatively slender experience, but running through a continuous practice of twenty years. For the first five years I prescribed mercurials freely. For the last fifteen years I have treated nearly all cases without them and with equally good results. Whatever benefits may have accrued to the human race from the introduction of mercurials into medical practice, it has certainly suffered a vast amount of evil on account of the ignorant and indiscriminate use of these remedies. For every intelligent physician who prescribes a dose of calomel, there are a thousand self-constituted doctors who deal it out as freely as they would chalk or cheese. I have been called to many a case of bilious pneumonia which had been brought to the verge of the grave by this misguided domestic treatment. From a careful comparison of cases, I am convinced that in this Western climate

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although a patient with pneumonia (no matter what may be its complications) may survive a few doses of calomel or blue-mass, yet he will be much slower in getting up than if he had been treated without it. The people pick their panaceas from the remedies which they observe to be most frequently used by the doctors. This accounts for the wide-spread employment of mercurials among non-professional persons among the middle and poorer classes. The evils resulting from the abuse of these remedies have continued beyond the period of necessity for their use. In skillful hands they were undoubtedly at one time the best known weapons wherewith to combat disease. We believe that time has passed. We know very well that both in the profession and out of it, all sorts of isms and pathies have arisen whose chief foundation consists in their opposition to mercurials. In the absence of positive indications for the employment of a mercurial, and in view of existing prejudices, professional and non-professional, be they well or ill founded, would it not be well for us to substitute such remedies as experience has taught us are equally efficacious, and not under the ban? I do not wish to be understood as a rabid and senseless opponent in this business. I am simply an enquirer, stating my convictions up to the point of my knowledge or ignorance of the subject, and shall always stand ready to be converted so soon as I am convinced of holding an erroneous opinion. I believe the profession to-day knows very little more about mercurials than it did twenty years ago, except the simple fact that they are not indespensable to the cure of any human malady.

REPORT OF COMMITTEE ON INFANTILE DISEASES.

BY A. H. LANPHIER, M. D., ATCHISON.

At our last annual meeting it was your pleasure to assign to me the special duty of reporting at this meeting on the subject of "Infantile Diseases," a subject, truly, which is worthy

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the serious consideration of every physician, and at the same time one that requires on the part of him who attempts to make an adequate report thereon, a large and varied experience, combined with a habit of close observation, a wise discrimination, and a sound judgment. With the above named qualifications staring me in the face, I am at a loss to account for my name having been selected and coupled with the title to this paper, unless, indeed, the names of members and the names of the different subjects were written on separate slips of paper and placed in a hat (or as the gift concerts have it, in a wheel), and drawn out lottery fashion, and as in these enterprises the chances are notoriously largely in favor of drawing a blank, I am afraid, gentlemen, that after listening a few minutes you will conclude this is no exception to the rule. However, as I am a loyal member of this association, I must make an effort to say something, with the faint hope, though a feeble one, that I may interest you.

By the term *infantile disease*, may be understood only those diseases which are peculiar to infancy, or the definition may be extended so as to include all diseases as they occur in infancy—a distinction totally unimportant so that we each understand what we are talking about.

In the outset I am met with such questions as these: "What is it in particular that a report, of the kind contemplated, should contain?" "Is it expected that the writer will enter into the history and cause of any one, or more, of the many ailments which are peculiar to infancy?" "Is it required that I shall discourse to you on the importance of a correct diagnosis and pathology of such diseases?" "Is it incumbent upon me to dive into the intricacies of the nervous system, or the *modus operandi* of remedies? I presume not, for all these may be found in your text-books, monographes, and distributed through pages of the various periodicals, which you may read at pleasure. I did intend, however, to present to you a sort of digest of all (or as nearly as may be) the cases in this catalogue occurring under the observation of the regular profession throughout the State during the last year, and have addressed over forty letters to the different physicians of the State looking to this end, and asking their assist-

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ance in carrying out this project. Out of that number of letters I have received a reply to four of them; of these four, two were courteous acknowledgements of the receipt of mine, and excusing themselves, giving good reasons of course, for not furnishing me with the desired assistance; two of them containing a very creditable statement of cases as requested. I here take occasion to thank the gentlemen referred to, Dr. ———, of Paola, Dr. Eaton, of Baldwin City, and Dr. Linley, of Atchison, for the willingness shown to assist me in the task, and their desire to contribute to the interest of the present occasion.

The original plan of the report having been rendered impracticable, as you may see, at this late date, April 8th, it will hardly be expected that I could present anything worthy to be called by the name, hence I have noted down a few thoughts, disconnectedly, which bear upon the subject under consideration.

It is asserted that one-third of all our patients are children. It has been shown that 20 per cent. of the whole human race die before the expiration of the first year of existence; and that, before the completion of the fifth year, 33⅓ per cent. have died. These facts go to show conclusively that the systems of infants and children are more easily disturbed than those of adults; it shows further, that the delicate and mysterious processes of organic and animal life are disturbed and interrupted by causes and agents, which are so slight as to produce no appreciable effect upon the health of the adult. It affords proof, also, that when they are diseased, that such disease is more frequently followed with death. Another consideration which magnifies the dangers incident to infancy and children, is the fact that they are not only not exposed to the untoward influences and hardships of adult life, but receive in addition, the tender and fostering care of parents and friends.

If, then, it is true as a general proposition, that natural agencies, in quantities utterly inadequate to produce an appreciable effect upon adult health, operate so readily, so generally, so powerfully upon the health of infants and children, is it not equally true, by parity of reasoning, that the same law will prevail when we come to observe the effects of such arti-

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ficial agencies as are suggested by the term therapeutics? You may say that this law has been recognized and acted upon long ago, and may inquire who would so far forget himself as to administer to his little tender patient as large a dose of opium, or, indeed, of any other remedy, as he would to one of mature life? Very true; but have we pushed our experiments in the direction of small doses, to an extent commensurate with the astonishing difference in susceptibility to both natural and morbific influences, as indicated by the well known difference in sickness and mortality rates between infants and adults? I think not. Who among you is prepared to demonstrate the correct and ultimate limit has been reached? It may be true that the *relative* quantities recognized in practice approximate the truth; perhaps they do; yet who among you will come forward and aver that children (and adults, too, as for that matter), when sick, would get well as soon or sooner, with much less medicine than we are in the habit of administering? I am confident that about the same proportion of my patients get well, and get well as soon, as those of my colleagues, and in most instances with much less medicine; and I dare say that there are others among us who have discovered a similar state of things. If, then, this be admitted *as true*, I presume we will admit that he who has administered the most medicine (allowing the cases compared to be alike), has given too much. I well remember a case in which one of the medical gentlemen of this city was called in consultation—the case: A child of three years, where the exhibition of strychnia was agreed upon, the dose suggested was a 240th part of a grain; I thought it too much, and suggested that it be reduced to a 480th, which was agreed to, but it was intimated that I might be too cautious. The gentleman referred to remained all night with the patient, leaving for home on the early train, and leaving a note for us (for there were two of us attending physicians), in which he advised the discontinuance of the strychnia, as the second dose had evidently produced poisonous symptoms. It was discontinued, and no more of the peculiar effects of strychnia were observed. I relate this to show that we should be very cautious that our remedies do not have a poisonous effect instead of a remedial

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effect. It may be said that this is a case of idiosyncrasy—perhaps it was, but in my humble opinion, all children are *inclined* to idiosyncrasies in the same direction—though, perhaps, not all to the same extent.

The chemist in his laboratory knows that when he places together a definite quantity of a certain acid and a base, a definite chemical compound will result; that however often he may repeat the experiment, the same result will uniformly follow; this, too, whether it be repeated in Leavenworth or Chicago, in New York or in London. The veriest school boy in knowledge knows that whenever he places a strip of copper and strip of zinc in some acidulated water, a current of electricity will be developed, oxygen gas being evolved at one pole and hydrogen gas at the other. Yet no such certainty attend our experiments in therapeutics. I say *experiments*, because we should call things by their right names, especially when talking among ourselves. I mean to intimate (gently), gentlemen, that compared with the methods of exact science, we are in therapeutic detail practicing empirically. We are undoubtedly, as a body, possessed of a good deal of valuable knowledge and practical wisdom, but it will do us no harm to reflect a little upon what we *don't* know!

One of the characteristics of the progress and development of the medical profession has been the constant tendency to give less medicine and depend more upon the *vis medicatrix naturæ*. Accompanying this general tendency there has been as constant, though lesser changes in the estimation of the power and fitness of particular drugs—new remedies constantly springing into existence, others disappearing from the catalogue. Such is the prevailing uncertainty in the treatment of the most common diseases, that a patient treated for typhoid fever, or rheumatism, in London, Paris, New York, New Orleans or Philadelphia, would probably receive a different treatment in each locality, and probably with equally favorable results.

In the matter of diagnosis and pathology we are not so utterly in the dark, and to this, perhaps, more than anything else, is due the change in the appreciation of drugs. Instead of guessing what is the matter, in many cases we are able to

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ascertain with exactitude the pathological condition we have to deal with. Percussion, auscullation, the microscope, laryngoscope, optholmoscope, chemical tests, etc., are bringing diseases more directly under the observation of the senses, and therapeutics has felt their influence, and is constantly exhibiting corresponding changes. In fact it is the barometer of physiology and pathology. The molecular theory of organization first taught I believe in the physiology of J. Hughes Bennett, of Edinburgh, furnishes the most satisfactory explanation of the phenomena of growth and nutrition, and gives, occasionally, glimpses into the manner in which many, if not all, medicines act upon the system. Just as by virtue of the molecular attraction and repulsion whereby one tissue attracts or selects from the blood fat, another albumen, another phosphate of lime, or one gland attracts the material out of which it forms bile, another attracts the substance which it forms into urea; so we may say that this tissue attracts the peculiar property of one drug, and another tissue of another drug. What other reasonable explanation can be offered of the effect of the different drugs upon the different organic functions? And it is probable that in this sort of physiological investigation we shall find our most useful aids in determining the therapeutic value and action of drugs. Mercury, whatever other action it may be supposed to possess, has undoubtedly an affinity for the glandular system, especially of the salivary glands. Instance the well known mercurial sore mouth, and in the salivation attendant on the teething of infants, I am in the habit of exhibiting a powder of calomel and sugar, in the proportion of from one to twenty, to one to forty—giving frequently dry on the tongue—and I rarely find a case to continue longer than two or three days under its use. Again, in cases of infantile diarrhœa, attended with frequent greenish discharges, which I interpret to be expressive of glandular excess, I administer the same remedy, and nearly always with benefit. Aconite is said to act upon the nerves of the heart, affecting thereby the circulation and controlling fever. This is probably its primary effect in the ordinary medicinal doses, but in much smaller doses, say the one-eighth to one-sixteenth of a drop, I believe it operates by an effect upon the vaso-

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moter nerves, for I have never seen it do permanent good in idiopathic fever. On the contrary, in simple catarrhal fever, attended or not by local symptoms in the respiratory surfaces, or digestive tract, I have frequently observed the most magical results—the little patient becoming, in course of half an hour or hour, quiet, surface cool, bathed in healthful perspiration, followed by a natural sleep and rapid recovery. At other times these manifestations are more tardy in their appearance, but in a majority of instances the progress of the cases are more satisfactory than under any other means I had resorted to. At the outset of *catarrhal croup*, nothing in my hands has ever afforded that rapid relief to the patient, and satisfaction to parents and myself, as these small doses of aconite. In the early stages of pneumonia and bronchitis, I have found nothing to please we so well as these small doses of aconite combined with small doses of spirits of mindereri, and I have authority for quoting with other physicians of our town. Not long since I was relating my experience in these small doses to a very intelligent practitioner of a neighboring city, and he asked me if I had tried a teaspoonful of cold water with an eighth of a drop of nothing in it? I told him I had not, possibly I may do so. I am not prepared to assert positively that it would not be a good treatment in *pneumonia*. I have no doubt there are cases in which such medication would be available. Yet from the long continued habit of attributing good effects to the remedies exhibited, I am inclined to believe it legitimate to attribute the beneficial results to the small doses. Nevertheless, I am conscious that we cannot establish a correct system of therapeutics without first acquainting ourselves with the progress and termination of diseases, under favorable circumstances, uninfluenced by any therapeutic measures whatever. Bichromate of potassa is another medicine which I have been led to use in certain conditions in pneumonia and bronchitis—where the secretion is tough and viscid and difficult of expectoration; and in one case a few weeks ago, I believe it to have been the salvation of a little sufferer who was thought to be almost dying from the accumulation in the air tubes—marked relief followed the exhibition of second dose. The prescription in this case was ℥j of sol. of the salt in two

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ounces of water; of this a teaspoonful every two hours. But I will not tire you further with small doses, only to ask you to try them, and report results at the next meeting.

In closing, I desire to state that I very much regret that the original plan of a report could not have been carried out, as in that case I might have been able to give you something of interest, rather than the few disconnected thoughts I have presented. Yet I believe it to be the duty of every member who accepts a position on a committee to do something towards a report. This is the reason I have risked presenting what I have.

MEDICAL REFORM AND THE SUPPRESSION OF QUACKERY.

BY A. M. WILDER, M. D., LAWRENCE.

This subject of "Medical Reform and the Suppression of Quackery" has been a vexed one with the profession for centuries. From the earliest period at which we have any knowledge of medicine as a separate and distinct science or art up to the present day, there has been war between those claiming to represent the profession, and all outsiders.

It has been with much hesitation, that I have undertaken to say anything on the points indicated by our subject, knowing how much has been said and how many reports have been made upon them by persons eminently more able to handle matters of such absolutely vital importance to the profession.

I have felt, however, that by availing myself of what has been heretofore done in this direction, I might present some points in such a manner as to call your attention more strongly to them, and offer some suggestions worthy of your consideration.

I have thought it well to divide my subject into, first, a rapid survey of the manner in which medical science has reached its present state of development; second, a considera-

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tion of the profession as it exists to-day, with the various offshoots claiming to represent new schools and ideas; third, Medical education as it exists; fourth, Quackery in its numerous phases; and finally, a discussion of remedies for reform.

First. Renouard, in his admirable History of Medicine, has indicated three great divisions, which he terms, first, the age of foundation; second, the age of transition: and third, the age of renovation.

These ages he subdivides into eight periods. In the age of foundation, he speaks first of the Primitive period, from the origin of society to the destruction of Troy, 1184 B. C. Second, of the Sacred or Mystic period, ending with the dispersion of the Pythagorians, 500 B. C. Third, of the Philosophical period, ending at the foundation of the Alexandrian Library, 320 B. C. Fourth, of the Anatomical period, ending at the death of Galen, A. D. 200.

In the age of transition, he places the Greek period, ending at the burning of the Alexandrian Library, A. D. 640, and the Arabic period, ending at the revival of letters, A. D. 1400.

In the age of renovation, he makes the erudite period, comprising the fifteenth and sixteenth centuries, and the reform period, comprising the seventeenth and eighteenth centuries.

I shall not attempt to follow closely these historical subdivisions, but shall speak first of Medicine as taught by the Greeks in the temples of Æsculapius, whither the sick were wont to repair for the assistance of the god. More or less accurate records of these cases were preserved, and thus the Asclepions, besides temples, became both hospitals and schools. The physicians of these schools were also the priests in the temples. Cotemporaneous with these, there was a class of physicians who visited the sick at their own homes. The gymnasia undoubtedly contributed to form the earliest physicians, instructing them especially in the treatment of injuries; and then, as now, there was a class called charlatans, who, without any pretense to education, offered their nostrums for sale in the market places.

For Hippocrates, born 460 B. C., at Cos, was reserved the glory of compiling from all these sources and his own admirable observations, a theory of Medicine, and separating the

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pursuits of the physician from those of the priest. He so thoroughly accomplished this work, and his writings and descriptions were so accurate and vivid, never having been excelled, if they have been equalled, that he has received the title of "Father of Medicine."

The Hypocratic school of Cos found a rival in the school of Cuidos, which offered not only a different view of the nature of disease, but also taught a different principle for its cure. The antagonism of these schools brought into existence many able men, and produced many excellent works.

Under the fostering care of the Ptolemies, Medicine reached a high state of development at Alexandria, where human dissections were authorized, and vivisections of criminals and animals were employed. Opposed to the two schools mentioned above, Serapion, of Alexandria, about 287 B. C., formed a new sect called the Empirical.

Medical science was introduced into Rome by the Greeks, from Alexandria, about 234 B. C., but the latter were so much hated by the Romans, who depended upon their priests and oracles, that their lives were in danger, and they obtained little or no practice. About 50 B. C., Asclepiades, of Bythinia, founded a school of medicine at Rome on the Epicurean doctrine. Immediately after Asclepiades, Themison, one of his pupils, founded the Methodic sect. Another sect came into existence about 100 A. D., called the Pneumatics.

Of the few Latin medical authors, Celsus was the chief. He wrote upon a variety of subjects, but his work entitled "de Medecina" is a digest of what was known to the ancients on the subject, and shows the great progress which medicine had made in consequence of the labors of the anatomists of Alexandria.

To Galen, born at Pergamus A. D. 130, is commonly attributed the maxim "Contraria contrariis curantur." He adopted the Hippocratic theory of the four elements, four humors, and four qualities, but attached himself to one of the different sects into which he found the profession divided, and despised those who gave themselves up to obey any particular master. From the time of Galen, medicine began to participate in the decline which had already overtaken art and literature.

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It was only when medicine already tended towards its decline, that it became legally organized. In the pagan world every one practiced at his will, and charlatans abounded. The injury done by quackery and imposition led finally to a remedy.

The Christian emperors established in towns of a certain size, chief physicians, and no one could practice medicine without having successfully passed an examination before them; these chief physicians were paid by the State. In certain of the principal towns medical schools were established, in which the professors and lecturers received a regular salary, also from the State.

Hospitals and dispensaries owe their origin to Christianity; were generally established in connection with monasteries, and consequently were under control of the monks, rather than educated physicians. Medical science in Europe came under control of ecclesiastical authority, and for nearly twelve centuries after the time of Galen, no advance whatever was made or was permitted to be made.

During this long interval, the science of medicine was sustained and advanced by the Jews and Arabians in Asia and Africa, and was carried by the Moors and Jews into Spain. The Saracen and Hebrew physicians had become thoroughly materialized.

Throughout Christendom the practice of medicine was altogether supernatural, and saint-relics, shrines, and miracle-cures were a source of boundless profit.

In the subsequent conflict between the two, the Arabic system gained the victory, and all science, including the medical, was wrested from the exclusive control of priestcraft.

During the "dark ages" in Europe, one small town only affords a glimmer of light. The school of Salerno, founded about the date of the destruction of the Alexandrian Library, attained the height of its reputation, from the tenth to the thirteenth century.

Frederick the Second, in the course of the thirteenth century, published an edict, that no one should practice medicine in Naples until he had been examined by the faculty of Salerno. After receiving authority to practice, the candidate took an

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oath to be pure in his life, to be submissive to the laws, to attend the poor gratuitously, and not to share the profits of the apothecary. For the first year after receiving his diploma he was obliged to practice under the superintendence of an older physician.

About 1315, A. D., Mondini, of Bologna, dissected the bodies of two females, and his discriptions, illustrated by wood cuts, were used as text-books in the Italian universities for the succeeding three hundred years.

Previous to the sixteenth century, European physicians had obtained most of their knowledge of Greek medicine through imperfect translations from the Arabic.

After the fall of Constantinople, A. D., 1453, learned Greeks carried a knowledge of their language, etc., westward, and translations of Galen, Hippocrates, Dioscorides, etc., were made directly from the Greek tongue.

Thomas Linacre, physician to Henry the VII, of England, established professorships at Oxford and Cambridge for illustrating and teaching the works of Hippocrates and Galen, and laid the foundation of the College of Physicians of London.

Paracelsus, who was born in Switzerland, A. D., 1493, was the exponant of a new school of medicine, founded on the study of alchemy. He was an extensive traveler, and made himself acquainted, not only with what was known by the profession, but also gathered all the knowledge he could of the claims of quackery and empiricism. He first administered mercury as an internal remedy. He did much in his time to break down the despotism of the schools, and taught many things far in advance of his age. He had, however, great faith in his own powers, and publicly burned the works of Galen and Avicinni at Basil.

About the middle of the sixteenth century Michael Servetes very nearly discovered the circulation of the blood; he had already proclaimed the lesser circulation through the lungs, the valves of the heart, of the aorta being known, and he was diligently pursuing his investigations, when he was arrested, at the instance of John Calvin, on a charge of blasphemacy and heresy, and, together with most of his books, was burned at the stake in 1553. By this act discovery of the circulation

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was deferred for nearly three-fourths of a century, leaving to William Harvey, an Englishman, the honor of announcing the complete discovery in 1628. It was met by violent opposition, and years elapsed before Harvey had the satisfaction of seeing his views accepted generally by the profession.

As late as the middle of the seventeenth century many of the powerful remedies of Paracelsus and his school of alchemy were in the hands of outsiders, and Van Helmont, who had the common itch in 1640, after exhausting all the remedies known to the profession, was obliged to resort to the quack nostrum—sulphur.

In this century the French parliament interdicted the use of antimony as a medicine, and the faculty of Paris not only forbade the employment of all chemical remedies, but would not even permit them to be spoken of in thesis and examinations. About this time Ambrose Pare, who began his career as a barber-surgeon, gave surgery the greatest impulse it had yet received, but in the face of great opposition and persecution. Wounds from fire-arms were considered poisonous, and it was the custom to cauterize their track with boiling oil. On one occasion, in 1636, while serving as surgeon in the French army, Pare's supply of oil became exhausted, and he could not sleep for anxiety, but the morning found those doing better who had received no treatment, than those who had undergone cauterization. Pare also discovered the use of ligatures to control bleeding after operations, etc., and substituted them for the actual cautery.

Thomas Sydenham, who may be called the father of English medicine, and who was, perhaps, the most remarkable physician from the time of Hippocrates, was borne in 1634. He introduced many improvements into the practice of medicine, overturning many of the existing theories and ideas, and is authority in some things at the present day. He belonged to the so-called Chemical School of Medicine.

Alphonso Borelli, in Italy, a celebrated mathematician, about this time originated what was known as the Iatro-Mathematical School. This school had many followers in Europe; in Great Britian, Pitcairn, Friend, Mead, etc.; in Holland and Germany, the great Bœhaave, and others; in France, Sanvayes,

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the learned nosologist, and Senac, who was physician to Louis XIV.

Herman Bœhaave, perhaps the most celebrated physician of his time, an accurate observer, and a successful practitioner, was one of the first to put in practice clinical instruction. While the chemical and mathematical physicians were reducing the action of the living body to the laws which govern inert matter, Slaht and others, at the Anniversity of Halle, instituted a new system which made the "anima," or soul, the great motor and directing principle of the human body. In 1747, Haller, by his published works and teachings, gave a distinct existence to physiology as a science, and during this and the following century improvements, additions and discoveries were being constantly made in medicine and its collateral branches. Although many of these were made by accident, and by persons unconnected with the medical profession, many remedies remained for years the exclusive property of quacks, who were utterly ignorant of the anatomical or physiological truths; these, by a slow and gradual process, finally found their way into, and were adopted by the profession; thus, Preuvine bark, iodine, lemon juice, and sauer-kraut for scurvy, vaccination, etc., have all been the result of accidental discovery. It is said that the physicians of Oliver Cromwell allowed him to die of ague, rather than administer the quack remedy, Peruvian bark; and about this time the president of the Royal College of Surgeons committed Dr. Grovenveldt to Newgate for prescribing cantharides internally.

The wonderful discovery of Jenner, of vaccination, was most violently assailed, and although its introduction has rendered comparatively harmless what was one of the greatest human scourges, there are not wanting those to-day, even among the educated classes, who do not hesitate to declare the whole system an arrogant humbug.

In 1775, Samuel Hahneman, the exponent of homœopathy, was born. In 1790 he was employed in translating Cullen's materia medica, and being dissatisfied with his explanations of the action of Peruvian bark, commenced the system of testing the action of drugs on the healthy organism, beginning with himself. Subsequently he tested in his own person and

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that of others, the action of different drugs in varying doses, carefully noticing their effects. In the course of time he deduced from his observations what he considered and announced as the absolute law of cure, which he expressed in the phrase "Similia Similibus Curanter."

In the beginning of the present century hydropathy, or water-cure, was instanced by a Silesian peasant, Vincent Priessnitz. The system was first brought prominently to the English public in 1840, by a former patient of Priessnitz, Captain Claridge, in a book entitled "Hydropathy, or the Cold Water-Cure."

The Eclectic School of Medicine was instituted in this country at Cincinnati, about 1840; it embraces in its ranks what used to be known as the botanic or Thompsonian school. Besides these there have sprung into existence other pathics, such as physio medicists, sun bathing, Sweedish movement cure, &c., &c. Nearly, or perhaps quite, all of which are conducted by persons having little or no medical knowledge.

The medical profession of to-day is the result of the accumulation of observations and investigations on the part of scientific men, from the time of Hippocrates to the present and also of all discoveries, whether the result of accident or otherwise, which have been demonstrated to be of value. No matter how insignificant the source, the truly professional physician does not hesitate to accept and adopt whatever his reason and experience prove to be useful. The profession does not, and would not if it could, ignore whatever of real good there may be in any of the various so-called new systems of medicine, and it will at all times sustain its members in making use of any therapeutical agent which may be claimed as the exclusive property of any one of these so-called systems, provided always, that such agents are used in a truly professional spirit, and not to the upholding of any sectarian views. The profession theoretically demands of its members a thorough knowledge of the human machine in health and disease, to be acquired by careful dissection and post mortem examination, a knowledge as thorough as possible of the physiology and pathology of the body, and a careful instruction in all the natural sciences and collateral subjects that relate in any way

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to medical knowledge. Provided a person shows evidence of having complied with these requirements, and has received a degree of Doctor of Medicine from a respectable school, the profession acknowledges his privilege to devote all his energies to the investigation and practice of any branch of medicine, provided he regards such branch as a part of the medical whole, and does not by advertising, or otherwise convey the impression that he is simply driving a certain trade, ignoring the relations he bears to the general profession.

A friend of mine, who stands among the first of our opthalmologists, told me a few days since of a lady who came to consult him about her eyes. She took occasion, in the course of conversation to express her utter want of faith in doctors, and was much astonished when he quietly informed her that she had no occasion to consult him, as he was a physician himself. This lady, like many others, had been in the habit of considering this branch as utterly separated from the general profession, and had been educated to this belief from seeing so many advertisements to that effect.

Let us now pass to a consideration of some of the so called new schools of medicine. The most prominent of these is that called the homœopathic or Hahnemanic. As I have before stated, this system was founded by Samuel Hahneman about the beginning of the present century, and was, and is now, purely a system of therapeutics. Hahneman announced as the basis of an absolute law of cure, the phrase "Similia similibus curantur." He also taught as a fundamental part of his system, the necessity of infinitesimal doses of medicine, and carried this principal so far as to treat certain diseases by causing his patients to inhale the odor of medicinal substances of an attenuated degree. In speaking of this system, we are of course compelled to take Hahneman's own statement as a basis. I can devote but little space in this paper to a consideration of this matter, and shall content myself with making a few statements as to the real ground work of the practice, as announced by Hahneman himself. He has made no claims for his system in surgery, anatomical or physiological knowledge, chemistry or its collateral sciences, and almost entirely ignores pathology; his true battle field is in therapeutics. He

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claims that there are but three ways of employing remedies specifically. First, the allopathic method, which uses remedies whose effects are different from the symptoms of the disease; second, the homœopathic, which employes remedies whose effects have the closest possible resemblance with the symptoms of the disease, and third, the anti-pathic, which employs remedies contrary to the disease. In all of this, he loses sight of the pathological conditions, which the train of symptoms makes plain to the true nosologist, and insists that all practitioners employ remedies for symptoms, without taking note of the underlying cause of such symptoms. In his practice, he notes, with more or less care, the symptoms of a case, in their order of occurrence, and without any attempt at location or classification of the disease, he selects from his list of remedies that one which, in his opinion, has produced in the healthy organism, effects the most closely allied to these symptoms; if this remedy does not produce a cure, he selects another on the same plan, and continues to do so until the case is terminated. Such being the system, it is not strange that the standard of education is extremely low, and that so many can become recognized practitioners by starting out with a box of medicines and a book of instruction. I have in mind a fair illustration of this matter, in a case that has come under my own observation, and I have known several similar ones. A former citizen of Lawrence was employed during a period of five or six months in the office of a homœopathic physician, for the sole purpose of posting his books, and settling his accounts. At the end of this time, he removed to one of the flourishing towns in the southern part of the State, and began practice as a homœopathic physician. At the meeting of the State Homœopathic Medical Society, recently held at Lawrence, this person was proposed for membership. His case, with others, was referred to a Board of Censors, and he was recommended and admitted as a member in good standing, after having been in practice some five or six months. That such a system can command the respect and support of educated and intelligent people to the extent that it does, having succeeded even in obtaining legislative authority for the establishment of a chair in the medical department of the State University of Michigan,

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can no more be explained than the fact that thoroughly advertised patent medicines are taken with so much avidity, and in such trusting faith. In both cases the public is called upon to decide a matter wherein it has always been, and is now, culpably ignorant. That the profession is largely to blame for this ignorance, I shall endeavor to show subsequently.

The special claims of the so-called Eclectic School of Medicine rest also in the department of therapeutics, wherein its exponents largely differ from each other; the Scudder School at Cincinnati, approximating very closely to homœopathy in the treatment of symptoms by attenuated doses, etc. One of the graduates of this school, also a former student of the College of Physicians and Surgeons in New York, and a very intelligent gentleman, told me, a short time since, that he was almost prepared to say that the nearer they approached to the homœopathic system of practice, the more successful they would be in the treatment of disease. I believe there have been but four schools in this country where this system has been taught, the oldest at Cincinnati, established in 1840. One in New York City, another in Chicago, and a fourth in Philadelphia, which last had its charter annulled during the past winter by the State legislature, by reason of its extensive transactions in diplomas. The very basis upon which this system rests proves that it has no right to its present name of eclectic, inasmuch as the word signifies the selecting of what is good from all systems, while its exponents have from the beginning, and do now, in all its schools, through all its journals, and in all of its local, State and national organizations, demand that all preparations of mercury, arsenic, antimony and lead shall be expunged from the list of medicinal remedies. In so doing they have transgressed the spirit of the profession, and have become sectarian. Besides this, we all know of more or less instances where persons with absolutely no medical attainments have announced themselves to the public as eclectic physicians, who would hardly have dared to appear under the banner of the regular profession.

The Hydropathic, or Water-Cure system differs from the preceding, in that it professes to do away with all medication, and depends entirely in theory — upon a strict attention to

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hygiene or the laws of health, and the use of water, hot or cold, in various methods of application. In all cases where practicable, they require the patients to leave their ordinary homes and mode of life, and enter some one of their establishments where all requirements can be strictly enforced. In very many instances the exponents of the system have little or no real knowledge in medical science.

To the numerous other pathies or isms in existence, it is hardly worth while to devote any attention ; they are all narrowly sectarian, and all occupy but a very small portion of the field of medicine.

I next pass to the subject of medical education, more especially as conducted in the United States, and by what are termed regular schools.

Our schools are all based upon State Legislative authority, either by special charter, or under the provisions of a general corporation act. This authority invests the corporators with power to graduate students in medicine, and to determine for themselves the requirements for such graduation. With one exception, and that of a recent date, the different schools in the country demand only that students shall have been engaged in the study of medicine for three years, under the supervision of some respectable practitioner, or of the schools, during which time they shall have attended two full courses of lectures at some recognized medical college, or rather shall have procured tickets for such courses, at the end of which time they are required to pass an examination before the faculty, when they are at once launched into practice. Statistics show that but a very insignificant per centage of these students fail to pass the examinations. No demand is made for literary requirements, not even a common school education being requisite.

Let us examine some of the promint evils of our present system. First, the number of schools is absolutely unlimited, any ten or a dozen physicians may join together and organize a medical school, and graduate students at discretion, no matter what the facilities may be for education or clinical instruction. Second, there is no uniform standard, either in the matter or kind of instruction, or in the requisites for gradua-

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tion. Third, each school examines and graduates its own students, and as the faculty in most cases receives compensation from fees, the temptation is a strong one to graduate as many students as possible. In addition to these very unfortunate evils, existing in nearly, if not quite all of our schools, there is one existing in some of them, which is the most crying evil of them all. I refer to those schools that openly grant diplomas to students on one course of lectures, provided they can show proof of having pursued their studies during three full years with a recognized practitioner, or that they have been in practice for that length of time; and more especially to those institutions where students are helped to diplomas on one course of lectures, when the faculty is well aware that the graduates have neither completed their term, nor are in any wise competent to enter upon the practice of medicine. I have very good authority for believing that these things are being done continually in some of our medical colleges.

In marked contrast with these, and in fact with all the other medical schools in the country, are the methods of instruction adopted during the past winter by the medical department of Harvard University. This has always been one of the best schools in the United States, but its recent action has placed it very far in advance of all its cotemporaries. I make a few extracts from the eighty-eighth annual commencement, to indicate some of the radical changes adopted: "Instruction will hereafter be given by lectures, recitations, clinical teaching and practical exercises, uniformly distributed throughout the academic year. This year begins on the Thursday following the last Wednesday in September, and ends on the last Wednesday in June; it will be divided into two equal terms, with a recess of one week between them. There is also a recess of one week at Christmas. The course of instruction has been greatly enlarged, so as to extend over three years, and has been so arranged as to carry the student progressively and systematically from one subject to another, in a just and natural order. In the subjects of anatomy, physiology, chemistry and pathological anatomy, laboratory work will be substituted for, or added to the usual didactic lectures. Every student will have his place and time in the anatomical, physio-

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logical and chemical laboratories, and in the microscope room; and laboratory work will be as much required of him as attendance at lectures and recitations. Instead of the former hasty oral examinations for the degree of Doctor of Medicine, held at the end of the three year's period of study, a series of examinations on all the main subjects of medical instruction has been arranged, and these examinations will be conducted, in part at least, by questions and answers upon paper." No student will receive his degree until he has passed a satisfactory examination in all the required subjects of study, and presented a certificate from the demonstrator of anatomy that he has satisfactorily dissected the three parts of the body. In the requirements for a degree, this school also omits all mention of preliminary education.

Let us now consider the fourth division of our subject, viz.: Quackery. Felton's definition of a quack, is "a boaster, one who pretends to skill or knowledge which he he does not possess." Addison defines him, as "a boastful pretender to medical skill which he does not possess; an empiric, an ignorant practitioner."

Quackery to-day exists in innumerable forms, and I shall only attempt to indicate a few of the prominent of them, as I have neither time nor space to devote to the subject, at all commensurate with its importance. The lowest form comprises those, who, with no knowledge of the human machine, either in structure or workings, commence practice with perhaps a few receipts or prescriptions surreptitiously obtained from some physician, or with a box of specific medicines and a book of instructions. In some instances, such pretenders have, by a good address and a chain of fortunate circumstances, succeeded in building for themselves a position in society, and have acquired wealth, whilst an educated physician may have signally failed to do either, placed side by side with him. Another class of persons have acquired more or less knowledge in the schools, and have deliberately prostituted such knowledge to the sole purpose of getting wealth, with no regard whatever as to the welfare of those who might fall into their clutches. This class is largely represented in professional abortionists; those who advertise to cure all manner of vene-

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rial diseases and the effects of self-abuse, (see almost any of our principal newspapers), and those who are given to traveling about the country, stopping a longer or shorter time at places where they had previously heralded their approach with flaming hand-bills and placards. Very few of these classes make any claims for recognition at the hands of the general profession; many announce themselves as homœopathic or eclectic physicians, or as the exponents of some new dogma. I desire, in this connection, to speak of a class of physicians, found everywhere, who take up the study of medicine from the narrowest and most selfish motives, without any adequate conception of the responsibilities they are taking upon themselves, or of the noble and self-sacrificing labor, the true physician feels it his privilege to perform. These are content so long as they are able to pass the required examinations, and obtain their degrees of Doctors of Medicine, no matter what the standard may be, and their studies, save what experience may teach them, end with their college course.

With all these facts constantly before us, with the personal knowledge that all of us have to a greater or less extent the facilities for an easy graduation, offered in some of our medical schools, is it any matter of surprise that the profession is held so low in public estimation. How can we regard those schools that have no facilities whatever for clinical instruction, for imparting a knowledge of pathology, or more than a meagre didatic instruction in most of the other branches of medicine, in any other light than as hot-houses for the development and bringing forth of quacks and empirics, who, nevertheless, by virtue of their diplomas received from an authorized source, are placed on terms of equality with the truly educated physician. One consequence of the low estimate in which the profession is held by the public, is very strongly manifested in the great demand for, and use of patent medicines. This species of quackery has attained to frightful proportions; there is scarcely a house in the country where one or more of these nostrums are not more or less made use of, and not only are they sustained in this manner, but many of our prominent and most intelligent citizens lend the strength of their names to the advertising of their virtues;

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more especially is this the case in the lesser preparations, such as troches, soothing syrups, &c. Some of these proprietary remedies, doubtless, have medicinal virtues, that they are placed in the hands of an ignorant public, and are recommended for all diseases, and under all circumstances. Many of the "bitters" are largely used as substitutes for intoxicating liquors, and are put in the market with a view to supply that demand. No matter how vile the compound, so long as it comes thoroughly recommended, there will be found plenty of throats down which to pour it. It would seem as if that nostrum about which the most lies were told was the most popular. Perhaps the most stupindous humbug of to-day, in this line, is that known as "Dr. Walker's Vinegar Bitters," a compound, as its name implies, having for its basis the sour and refuse wines, which in former times had been thrown away as useless by the extensive wine makers of California, and rendered medicinal by the addition of a quantity of aloes; a nauseous and unhealthy mess, yet it is to-day, one of the most popular of the numerous "bitters" offered for sale. Too much cannot be said in condemnation of this practice. The remedy, in my judgment, consists in educating the people by a purified and elevated profession. Right here I would refer to one of the conditions imposed by the ancient school of Salerno upon its graduates, viz.: "Not to share the profits of the apothecary," as an indication that the same evil existed in those days, that is practiced to a large extent in many places to-day, much to the disgrace of the profession.

I pass now to the last division of the subject, a discussion of remedies for reform. In order to accomplish any radical change in the existing state of things, there *must be reform*, just in proportion to the extent to which it is carried, in that proportion will quackery and all its attendant evils be suppressed. It is the most important subject that we have to consider at the present time. While we are denouncing other pathies as being sectarian and narrow minded, they are holding up to ridicule our methods of instruction, and with some reason. I quote from a short article in the April number of the *Eclectic Medical Journal*, published in Cincinnati, entitled "The Beauties of a Regular Medical Education." After speak-

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ing in a sarcastic manner of a certain "learned professor" in one of the "regular medical colleges in Cincinnati," the writer proceeds to quote from the address of said professor at the commencement exercises of the college. "He compliments the graduates for their close attention to study, and for their attainments in medicine." "This class," he says, "is so thoroughly drilled, that if now I were to give the temperature observed in the progress of a disease, not one of them but could give me the name of the disease and its treatment." The writer comments: "A wonderful class truly! and what bright and shining lights they will be in the medical world. True there were a great many common looking men in that class; men with a very imperfect preparatory education; men who had attended but one brief course of lectures, and yet they had thus speedily reached the 'uppermost rooms' in the profession, and all because of this admirable teaching." We cannot afford to allow the profession to be thus degraded without raising our voices in protest. There have been numerous plans proposed as a basis of reform, but most of them have been of a local character, and cannot meet the wants of the profession in the United States.

At the annual meeting of the American Medical Association, held at Washington, D. C., in 1869, a series of resolutions upon this subject were adopted, and ordered to be transmitted to the different State Societies, then to be sent to the various county and other local societies for approval or otherwise. At the last annual meeting of the N. Y. State Medical Society, held in Albany, N. Y., in February, 1872, a report and certain resolutions were presented by Dr. E. R. Squibb, as chairman of a special committee to consider the question of medical education, which, although quite lengthy, I feel that I cannot do better than to quote entire.

After a recapitulation of the preamble and resolutions adopted by the American Medical Association in 1869, the report proceeds as follows: "Your committee fully recognize the grave necessity for this movement, and the wisdom of the proposed plan of action, and would, were it possible, add to the forcible expressions of the committee of the National Association in its report, herewith reproduced, and which should

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be carefully read and re-read by every thinking man of the profession.

"The question to be decided is, how far this society may wisely go with the best ultimate effect upon the progress of this vital reform, which is certainly inevitable, if the profession is to sustain its important relations to the community.

"Remembering the radical changes proposed in this plan, and the liability of defeating the object by any sudden effort on the part of this society to control its constituents in the way proposed, your committee conclude to recommend that, for the present moment, this society urges upon its constituent local societies the especial and careful consideration of this whole subject, with a view to future action, so that all delegates may come to this body after mature thought and discussion of the matter in all its complicated bearings, and in readiness to act with that decision and determination which alone can make any action effective or useful.

"Many years ago this society passed a resolution recommending the Censors of the County Medical Societies to examine the qualifications of young men who presented themselves to become students of medicine under the preceptorship of the members of each local society, and Dr. Bradford, of your present committee, testifies that in Courtland County, the resolution was carried out by the Board of Censors, of which he was a member, with good effect. This initiatory step in the movement, which now underlies this entire plan as proposed, seems to be comparatively simple and easy; and your committee advise that it now be recommended to the local societies as a fundamental portion of the plan, and as an indication that this work is now to be undertaken in greater earnest by the society, therefore,

"*Resolved*, By the Medical Society of the State of New York, that the County Medical Societies, which constitute this society, direct their several Boards of Censors to examine and determine the educational qualifications of such young men as propose to commence the study of medicine, and to certify to the fitness of all such as may be found qualified.

"*Resolved*, That the Censors of this society for the several districts be, and are hereby constituted Boards of Censors for examining and certifying such qualifications for all the counties within

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their several districts, in addition to the Censors of the County Medical Societies.

"*Resolved*, That any regular Board of Censors, whether of the State or County Societies, be competent to conduct and certify to such examinations, for all persons who may come before them for the purpose herein specified.

"*Resolved*, That no member of any medical organization represented in this society, be permitted to receive a student into his office until such student presents the certificate of a Board of Censors showing his qualifications to enter upon the study of medicine.

"*Resolved*, That the accompanying report on medical education, adopted by the American Medical Association, together with this report and resolutions, be printed separately in the form of a circular, and be sent to the presiding officers of all the organizations represented in this society, in sufficient numbers to supply each individual member of such organization. Respectfully submitted, etc."

The society resolved that the action of the American Medical Association at its twenty-second session, in the adoption of these resolutions, meets its approval, and that any county medical society failing to comply with this request, shall be subject of this society.

The resolution of the National Association was brought to the notice of this society by Dr. Logan at the annual meeting held at Atchison in May, 1870, and were accompanied by a series of resolutions, also by Dr. Logan, the object of which was to enforce their provisions upon the profession of this State. These resolutions were laid upon the table as amendments to the constitution of the society, to be called up at its next session.

The resolutions were brought up at the next annual meeting, held at Wyandotte in June, 1871, after a motion had prevailed to adjourn at a certain hour, which left little time for their discussion. After a short debate between Drs. Logan, Thomas, Lee and Lanphier, the question was called, and the resolutions were lost by a decided majority.

The very moderate action taken by the New York society upon these resolutions, has called forth some correspondence from Dr. Stephen Rogers, of New York, in an article published in the March number of the New York *Medical Record*, entitled "A Fatuous Profession and Infamous Medical Col-

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lege." I read a few short extracts: While I entirely sympathize with the committee in the objects of their report, I am convinced that the measures they propose are totally hopeless of desired results.

"After reading these resolutions, will any one please to tell us how any Board of Censors therein provided, or contemplated, can secure the attendance before them of any proposed medical student? What means have we for enforcing the fourth resolution?" (alluding to receiving students without a certificate, etc).

"It is morally certain that even among the members of the county societies this resolution will be extensively disregarded, and as to the large number and often respectable members of the profession, not members of the county societies, it will of course be nugatory.

"What, for example, can the censors do under the provisions of this resolution with reference to the students of one of our most distinguished teachers, who, by accident or otherwise, does not belong, by virtue of membership, to any county medical society?"

In my opinion the writer has hit the vulnerable point of the entire matter. However worthy and effective the resolutions, etc., might be, they are certainly rendered nugatory by the lack of legal power requisite for their enforcement, and the consequent lack of co-operation in reform.

This want of power is unhappily illustrated in the results of the action of delegates from certain medical colleges, assembled for the purpose of arriving at some systematic and uniform methods of instruction.

The first attempt at anything of this kind was made in 1859, at Louisville, Ky., preceding the meeting of the American Medical Association.

A similar attempt was made the day previous to the meeting of the Association in New Haven, in 1860. Less than a majority of the then existing Medical Colleges was represented at either meeting, and no effort was made to effect any considerable changes in the then existing methods of instruction.

No further attempt was made until the American Medical Association, in 1866, adopted a resolution earnestly request-

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ing the Medical Colleges of the country to hold a convention of delegates from their own faculties, and thoroughly revise the whole system of Medical College instruction, and appoint a committee from their own body to aid in carrying the resolutions into effect.

As the result of this action, delegates from eighteen medical colleges—a little over half the number then existing in the United State—assembled in Cincinnati in May, 1867. After three days spent in full discussion of the subject, five most excellent propositions were adopted by nearly an unanimous vote, and a committee of five were appointed to present said proposition to the trustees and faculties of all the medical colleges in the country, and solicit early and simultaneous practical adoption of the same. Official answers were received from but ten out of over thirty medical colleges then in active operation. Of these replies, one was non-committal, four suggested amendments or alterations to the plan proposed, while five expressed a sanction of the plan as a whole, and a willingness to carry it into practical effect, whenever the other colleges throughly the country would do the same.

The committe not being able to obtain a full expression of opinion concerning the plan proposed in 1867, issued a call for another convention to be held in Washington, D. C., in May, 1870. At that convention some eighteen or twenty medical schools were represented. The result of their deliberations is embodied in the following preamble and resolutions offered by Prof. Samuel Logan, of New Orleans:

"WHEREAS, This Convention has failed to secure the assent of a majority of the regular medical colleges of the United States to the system of improvement in medical education recommended at its last session; and,

"WHEREAS, It is the opinion of this Convention that the best means by which a judicious system of gradual improvement in medical education can be inaugurated by the medical colleges of this country, will be found in the *associated action* of such colleges as will unite for that purpose, it is hereby

"*Resolved*, 1st. That a committee of nine be appointed, whose duty it shall be to communicate with the faculties of all the regular medical colleges in the United States, with the view to ascertain how many and which may be willing to become members of an

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Association of Medical Colleges, having for its prime object the improvement of medical education.

"2nd. That the chairman of said committee be instructed as soon as he shall have received affirmative replies from ten regular colleges, to inform each faculty so consenting of the fact, and to request that each faculty elect one or more delegates to convene on the Friday before the day appointed for the meeting of the American Medical Association in 1871, and at the place of meeting chosen by that body; said delegates to be fully authorized to pledge their respective faculties to whatever definite plan of improvement in medical education may be adopted by the body in Convention.

"3d. That it is hereby recommended that said delegates organize themselves, in behalf of their respective institutions, into a permanent association of medical colleges for the above mentioned object, and with the view of co-operating with the American Medical Association, and the profession at large, in efforts to accomplish so desirable an end."

It was resolved to transmit a complete copy of the proceedings of the convention to the secretary of the American Medcal Association, another copy to the committee of nine appointed under the resolutions, another to the medical periodicals of the country, after which the convention adjourned sine die.

Thus we see that true reform has so far failed from lack of co-operation by *voluntary* action, and with the rapid increase in the number of medical schools, and the consequent increase of authorized practitioners, combined voluntary action in this direction will be more difficult to obtain. I cannot see how any uniform action can be obtained except by legislation, and in this connection I desire to quote again from a paper read by Dr. Stephen Rogers before the New York Society:

"After first showing the ignorance of even the better classes of the community with regard to medical matters, their disposition to patronize quackery, and the hopelessness of any attempts to improve the condition of things by education of the people, he assumed that in this, as a matter concerning public health and welfare, it was the duty of legislative bodies to interfere and protect the public from the depredations of unqualified practitioners; that the medical laws of the present day are totally inadequate for this purpose, and that the duty devolves upon the medical profession to do what is in their power

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to improve the present very lamentable condition of affairs. He claimed that this was to be done only by sinking disputes originating in therapeutical details and differences—the rock upon which their good professions have been wrecked for the past thirty or forty years—instead of which must be established the standard of adequate instruction, if we desire to secure the community from the imposition of quacks. Upon the assumption that a properly educated physician will, in some form or other, do what appears to him appropriate in cases of disease, and in wounds, let us insist upon the education, and leave the collateral questions of therapeutical belief and faith to the conscience of the individual. There is serious reason for the opinion that the acknowledged failure of legislation, and of the efforts of county, State and national associations to elevate and place legitimate medicine in its true light before the community, is attributable to two circumstances, viz.: their having been directed to the protection of the profession itself, and that those efforts have uniformly ignored the right of the so-called new schools to any voice in the matter. He called attention to the utter inability of the medical schools, or county, or other societies, under the present laws, to control the practice of medicine, and referred to the deterioration in the value of a diploma outside of medical societies. Let it first be regarded as an offence against public safety to attempt the practice of the art of medicine without adequate preparation, and there will soon follow little difficulty in obtaining laws needed for the punishment of the offender. There is little doubt that the degree of estimation in which our profession is now held, will diminish from year to year, so long as we stupidly abandon the community to the mercy of ignorant and criminal charlatans."

Dr. Rogers has expressed my ideas in much better language than I could do myself. I will only state in addition that I would go further in the matter of legislation than he has indicated. It would be absolutely impossible in the existing state of things, to obtain uniform legislation in the States upon this matter, see the action of the Michigan legislature with reference to the medical department of the University at Ann Arbor. I would have legislation by the Congress of the United States, and all authority derived from its action.

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Let the general government empower the American Medical Association to act, or else establish a medical bureau at Washington, separate and distinct from the present Surgeon General's department, having for its object the general supervision of medical education in the United States. Let this bureau have full power to limit the number of medical colleges, to indicate their location, and to have authority in the selection and appointment of professors and teachers, and also to appoint a board of examiners before whom all candidates for a doctor of medicine shall appear for a final examination. Let these institutions be endowed by the government and private charities, and the professors, &c., remunerated by fixed salaries. I would have them entirely free from all State legislation, and purely government institutions.

In this way the standard of education might be made absolute, and no person would be a legitimate practitioner without a degree of Doctor of Medicine given by the United States. This would at once establish a legal practice, and all persons attempting to practice without such authority would be liable to the penalty of the law. I would have these schools open alike to male and female, and would make a thorough education the basis of practice, leaving all details in the matter of therapeutic application, &c., for each individual to decide after he or she shall have received due authority to practice.

I believe some plan of this kind will have to be adopted before quackery and empiricism can be put down, and the sooner this can be accomplished the sooner our profession, one of the noblest of all, will be enabled to take the stand before the public, and in its estimation, that it rightly should.

VALEDICTORY ADDRESS OF THE PRESIDENT.

BY DANIEL C. JONES, M. D., JUNCTION CITY.

GENTLEMEN:—At a meeting of the Territorial Government in the year 1859, a charter was granted for this society. At that time the Territory was new, and but few settlers inhabit-

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ed our beautiful prairies; and still less were the number of regular physicians then engaged in regular practice in our new and flourishing State. From this small number of the faithful craft, has sprung our great and prosperous State Medical Society, to-day numbering nearly one hundred members.

When I look about me and see men who have come two and three hundred miles, leaving business and families, and have come here for the purpose of discussing and comparing ideas on the various medical topics of the day, it gives me double assurance that the medical men of Kansas are intelligent and progressive. New discoveries are constantly being made, new theories advanced, taking the places of the old, and various modifications are removing the rough corners, and science is bringing over the heretofore fathomless depths of the human constitution.

We are just emerging from darkness into light; the physician finds that he is living in an age when the accumulated knowledge of the masses outweighs the defunct dogmas of the most influential teachers of the olden times. Let me illustrate the difference of our times and the past in this matter, by the difference in another respect. The time has been when men cased in iron from head to foot, and disciplined by long years of careful instruction, went to battle. Those were the days of knights and nobles; and a dozen knights clad in steel did not fear a thousand of the common people. Gunpowder came, and then any finger that could pull a trigger was equal to the highest born and the best disciplined. What powder did for war, the printing press has done for the mind, and the physician stands no longer clothed with charms and incantations purporting to have descended to him through the agencies of some supernatural power, which to make known to his fellowman, would render his mighty power to combat disease inert.

If it be true, as Gray has it, that "where ignorance is bliss, 'tis folly to be wise," it is also true that a great many of our older members of the profession have acted upon this same principle, and have discarded everything that was not in keeping with the old laws of the ancients; but, thank God, the days of superstition are fast passing away, and scientific

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research is rapidly taking its place; and as the intelligence of the masses increase, so will be the increasing demand for intelligence in our profession.

I believe it to be the duty of every member of this society, to favor in every honorable way, the passage of some stringent law to protect the citizens of our State from the gross intrigues of quacks, and the baneful influences of patent medicines. I have no doubt but quack physicians and patent nostrums kill more yearly than all other forms of disease and accidents combined.

How often do we meet on the streets of our more populous cities, the well dressed scoundrel, who is dealing out medicine under the name of Dr., with some *pathy* tacked on to his name to give him significance—murdering slowly but surely some of our best citizens. "Similia similibus curantur," is the creed of those who are clothing the largest number in their "last claith."

This class of quacks, for they can be called by no milder term, make great and loud pretentions to doctoring children; and thus numbers of the poor, helpless babes of our land, are put into their hands for treatment, on the principle that if they do no good, they will do no harm. This is one of the greatest fallacies of the age; for while the little pill disciple is losing time waiting for nature to cure his patient, the disease is planting more firmly its hold upon the materius vita of the child, so theirs is the sin of omission and not of commission, consolatory to themselves perhaps, but the grave covers all; and soon the trusting parent forgets the past, and tries him again.

Thus goes he on from day to day,
Thus does he poison, kill and slay,
An's well paid for 't.

But in contrast to this fatal policy, we do not sit idly by wasting the opportune moment while yet the strength is good, to see whether or no they will get well without remedial interference, but adopt some plan of treatment that will either cut short the disease or guide it to a safe termination. It is my honest conviction, that the man who sits idly by feeding the fancy of his patient or their friends until all hopes of medication is passed, to be as guilty of murder as he who steals upon you under cover of night and cuts your throat for the

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small amount of money you may happen to have about you. Each works for the filthy lucre, and each is entitled to alike respect. And not until the strong arm of the law is interposed, will these abuses of our innocent and credulous people be corrected. But in cutting off quackery, we must do it on every hand; we must establish a rigid and efficient system of medical education in our State. Form a good and competent Board of Medical Examiners who will scrutinize closely the qualifications of all applicants for license to practice in the State, and bring up the standard to what it should be. The wholesale manner of graduating students at this day is becoming so general that a diploma is no sure guarantee of good attainments. Most of the Eastern States are moving in this matter, and the consequence is, most of the quacks are moving West, and hence our State is flooded with these beasts of prey. The influence of this society can control the lawmakers of the country if we move harmoniously in the matter.

We must build up on the foundation of those who have preceded us, and in accordance with the accumulated wisdom of past ages. When the sea is calm, all boats show mastery in sailing, but the merit of a craft is that she is ready to meet the most critical sea. So it should be with all who make the practice of medicine their great aim and object in life; they should be scientific and skillful men, ready at all times and under all circumstances, to bring to their aid all the knowledge that time and experience has accumulated.

No class of men has ever held in their hands so palpably the destinies and character of a mighty people, as do we today. We stand as did the Hebrew prophet, betwixt the living and the dead. We have but to uphold the cross of common truth, and those skulking knaves who are poisoning the public mind will fall, as did Lucifer, from the very battlements of heaven to the lowest depths of hell.

Let us see to it, in spite of the tenderness of American prejudice, in spite of the morbid charity that would have us rebuke the sin, but spare the sinner, in spite of the effeminate christianity that would let millions suffer, lest one man's feelings be hurt.

Let us then be harsh as truth, and uncompromising as

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justice, remembering always that every single man set against this evil may be another Moses, who may be instrumental in delivering his people from the ignorant abuses of the past, remembering and worshiping reverentially the great American idea of the omnipotence of thinking men.

PROCEEDINGS OF THE KANSAS STATE MEDICAL SOCIETY.

FORT SCOTT, KAS., April 29, 1873.

The Kansas State Medical Society met in annual session, in the *Monitor* reading-room, Fort Scott, April 9, 1873, and was called to order at 2 o'clock, P. M., by the president, Dr. W. W. Cochrane.

Present—Dr. W. W. Cochrane, H. K. Kennedy, C. P. Lee, G. R. Baldwin, G. W. Haldeman, J. S. Redfield and D. W. Stormont.

The minutes of the last meeting were read by the secretary, and approved.

The treasurer being absent, Dr. Baldwin was appointed treasurer *pro tempore*.

Drs. Lee and Redfield were appointed to fill vacancies on the Board of Censors.

Several gentlemen were proposed for membership, and their names were referred to the Board of Censors. Subsequently the Censors reported favorably on the following, and recommended their election:

Drs. B. F. Hepler, Fort Scott; L. S. Sanger, Fort Scott; N. N. Horton, Fort Scott; J. C. Rudd, La Cygne; J. M. Carpenter, New Lancaster; O. S. Pine, Lyndon; S. E. Sheldon, Topeka; R. D. McDonald, Topeka; C. V. Mottram, Lawrence; J. W. Cormany, Fort Scott; A. C. Barlow, Fort Scott; E. C. Hays, Fort Scott; W. M. Shean, Gardner; J. H. Cushenbery, Girard; S. W. Garwood, Fort Scott; O. C. Bender, Fort Scott; G. L. Lewis, Atchison; W. M. Gough, Atchison; W. H. Warner, Girard. These gentlemen were all elected.

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Drs. Baldwin, Kennedy and Haldeman were appointed the committee on nominations.

Drs. Stormont, Sheldon and Mottram were appointed the committee on publication.

Dr. Barlow was appointed to fill a vacancy on the Board of Censors.

The treasurer's report was read by the secretary, which showed seven dollars in the treasury.

On motion, it was referred to an auditing committee, consisting of Drs. Redfield, Sheldon and Carpenter.

The secretary made his annual report, and stated that the K. P. R. R., and the M. R., F. S. & G. R. R. had granted excursion rates of fare to the members attending this meeting. On motion of Dr. Kennedy, the thanks of the society were tendered to the officers of these roads for this courtesy.

The regular committees on Surgery, Obstetrics and Materia Medica were absent and had no reports.

The reading of the report on Practical Medicine, Dr. Haldeman, chairman of the committee, was deferred until this evening.

No reports ready from the special committees.

The Censors submitted the following report:

The Censors having investigated the charges preferred at the last annual meeting of this society, and examined the evidence against Drs. Eli Lewis and W. W. Rodgers, of Topeka, in the matter of their affiliating with John Homer, an advertising quack, find the truth of the said charges sustained, and we therefore recommend their expulsion from the society, and that their names be stricken from the list of members.

GEO. W. HALDEMAN,
JNO. S. REDFIELD,
A. C. BARLOW.
C. P. LEE,
Censors.

On motion of Dr. Baldwin, the report was adopted, and Drs. Eli Lewis and W. W. Rodgers were expelled from the society.

The secretary, as instructed at the last meeting, reported the names of those members who are more than two years in arrears for dues.

On motion of Dr. Baldwin, they were ordered to be dropped

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from the roll by the secretary, in accordance with the provisions of section 4 of article 4 of the By-Laws.

On motion of Dr. Baldwin, the society adjourned until 7½ o'clock this evening.

EVENING SESSION.

The society met as per adjournment, the president, Dr. Cochrane, in the chair.

Dr. Sheldon, of the auditing committee, offered the following:

The committee to whom was referred the treasurer's report for the past year, beg leave to submit the following:

We find the report of the treasurer correct, and recommend that Dr. J. W. Brock be authorized to retain the seven dollars now in his hands, and that an order be drawn on the treasurer for eighteen dollars additional, the amount due him for publishing the transactions of the society for the year 1872, as per order of the society at that meeting.

S. E. SHELDON,
J. S. REDFIELD,
J. M. CARPENTER,
Committee.

On motion of Dr. McDonald, the report was adopted.

Dr. Kennedy read a paper on Variola, giving a history of the late epidemic in Shawnee county. After extensive discussion of the paper, it was referred to the committee on publication.

Dr. Haldeman, chairman of the committee, read the report on Practical Medicine. Referred to the committee on publication.

On motion of Dr. Barlow, the thanks of the society were tendered to Drs. Kennedy and Haldeman for their papers.

Dr. Baldwin, chairman of the committee on nominations, submitted the following report, which was received and the recommendations adopted as follows:

The next meeting of the society to be held in Lawrence, on the third Wednesday in May, 1874.

OFFICERS.

President.—Dr. H. K. Kennedy, of Topeka.
1st Vice-President.—Dr. J. S. Redfield, of Fort Scott.
2d Vice-President.—Dr. T. Sinks, of Leavenworth.
Secretary.—Dr. D. W. Stormont, of Topeka.

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Assistant Secretary.—Dr. A. Newman, of Lawrence.

Treasurer.—Dr. W. W. Cochrane, of Atchison.

Board of Censors.—Drs. A. M. Wilder, C. V. Mottram, R. Morris, E. C. Hays and J. M. Linley.

REGULAR COMMITTEES.

Practical Medicine.—Drs. D. C. Jones, O. S. Pine and A. H. Lanphier.

Surgery.—Drs. J. W. Brock, S. E. Sheldon and D. W. McCabe.

Obstetrics.—Drs. M. S. Thomas, R. D. McDonald and Francena R. Porter.

Materia Medica.—Drs. W. B. Carpenter, W. M. Shean and C. P. Lee.

SPECIAL COMMITTEES.

Recent Advances in Physiology.—Dr. Albert Newman.

Recent Advances in Chemistry.—Dr. T. Sinks.

Infantile Diseases.—Dr. S. F. Neeley.

Indigenous Remedies.—Dr. J. V. Bryning.

Concentrated Remedies.—Dr. R. Morris.

Venereal Diseases.—Dr. J. W. Brock.

Uterine Hemorrhage.—Dr. A. M. Wilder.

Delegates to the American Medical Association, session of 1874, Drs. D. C. Jones, T. Sinks, G. W. Haldeman, S. E. Sheldon, O. C. Bender and W. W. Cochrane.

On motion of Dr. Kennedy, each delegate is authorized to appoint a substitute in case he cannot attend.

The president, Dr. Cochrane, then delivered his valedictory address. Referred to the committee on publication.

On motion of Dr. Haldeman, the thanks of the society were tendered Dr. Cochrane for his address, and for the courteous manner in which he has presided at this meeting.

On motion of Dr. Haldeman, the thanks of the society were tendered Hon. Geo. A. Crawford for the use of this hall; and to the physicians of Fort Scott for their courtesy on this occasion.

After a general and lengthy discussion on cerebro-spinal meningitis, the society adjourned to meet in Lawrence on the third Wednesday in May, 1874.

D. W. STORMONT, *Secretary.*

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VALEDICTORY ADDRESS.

BY W. W. COCHRANE, M. D., OF ATCHISON.

Notwithstanding the truth of the axiom that "Man wants but little here below, nor wants that little long," it is even in this enlightened age and world of plenty requisite for any one to exercise every faculty to obtain this little, and such is the struggle and strife to attain it that unless effort is guided by phylosophical, social government in its pursuit, it will in very many instances meet with signal failure. The masterwork of the creator of all things, man—the so-called lord of creation—is, during his early existence, the most helpless of all animals. Nude, he is the ugliest; physically, he is in proportion to his size, the weakest. The only created thing endowed with that acme of creation, the mind, and yet singly he walks through existence with more inconsistencies and contributes as little material aid to the perpetuity of the universe as any inanimate thing of like physical proportion. Isolated and selfish he would inevitably deteriorate to the more savage animal, and his mind uncultivated or untutored by his fellow-beings, would redound only to his own discomfort and ultimate destruction. The isolated, selfish man wanders through life scarcely half living during manhood, matures no mental comforts for old age, nor creates a star of hope to light him across the dark abyss which he must cross never again to return. But look upon him as a social being, giving aid and comfort to all about him —in proportion as he receives, so is he enabled to give; as he gives, so shall he receive—each pleasure and comfort he gives to his fellow-beings, leaves in its place an exhilarating influence upon the mind so that its continuous practice will free the mind from its gloomy shackles, will expand and purify it to a degree that it may be susceptible of the highest and noblest conceptions of nature as well as perfect it for the enjoyment of the most trivial incidents of life. A rational association with our peers, insures us a real enjoyment of the present, and gives us a fearless hope of the future. It will cleanse and cultivate the mind; will enable us to understand

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and appreciate human nature. The physician should, more than all others, habituate himself to this commingling with his fellow beings, that the mind may be free to exercise charity as well as to comprehend his profession. He will find it requisite to possess himself of all the attributes of a gentleman; enabled to satisfy the demands of his social circle as well as to maintain himself in his profession. With a medical education, constant study may assist in maturing theory, and enable him to satisfy all that he is well read, and has knowledge of his profession; but they alone will not enable him to answer all the varied calls at the bed-side successfully. He will find it imperative to associate with medical men if he expects to retain that knowledge which will enable him to meet promptly the many varied phases of disease, many of which are so rare that any physician will have months to elapse from one case to another; and let him neglect the habit of talking and thinking medicine, and his mind will soon become occupied with other things to the exclusion of almost all the essentials of a ready practitioner. To the practitioner all things must appear well; success will surely be attained just in proportion as he is competent, and performs his duty to his patients and the community. The details of diagnosis and materia medica are far more voluminous and varied than those of civil law; and yet the lawyer must consult his books before he will venture to give an opinion on any case. The physician is debarred this knowledge. He is called in haste; must diagnose, prescribe or operate without reference, save to his memory. If he errs and loses his case, there is no appeal; a life is lost, and his reputation is injured with the whole community. Bed-side derelictions are spread far more rapidly, and generally even among the intelligent, than any error of a court of law. The community holds the physician responsible for an opinion; asks it to be given without hesitation. If he investigates a case thoroughly, and considers all the bearings, he is voted slow, and at once considered incompetent, and without even reflecting upon the probabilities of an impure drug or an incompetent pharmaceutist. Attendants or patients will not only withhold that aid arising from faith, often so very effective, but will at once conceive it their duty to denounce the unfortu-

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nate physician. The only surety we have of retaining a knowledge of the various remedies for diseases, is from conversation with medical men. We often learn something from those who know but little; and if we do not learn anything, a question asked will often remind us, and fasten upon the mind valuable knowledge, which otherwise would have been entirely forgotten. The physician has more than all this to do. He may, by becoming socially popular, by acting promptly and curing his patients, meet with partial success; and when there is but little competition, he may succeed with hard work in making a competence, but if he expects to amass something to support him in retirement, when it becomes necessary for him to yield to younger men, he will have to lend his energy and talent to rescuing his profession from its present degraded position in the estimation of the public. The ignorant say that all doctors experiment, and guess at the disease as well as the remedy, and their only aim is to keep the patient sick so that they may run up a bill; that they are guilty of as many tricks as those of any other trade. The intelligent say it would require a study of medicine to distinguish the quack from the physician, and as physicians offer us no other means of distinction, they are probably all alike, one as good as another. In the estimation of the whole community our profession has fallen to the level of a trade so low that it is entered upon by the student only as a last resort, and all are struggling to leave it as early as possible. Effort has been expended for ages; laws have been enacted, and schools munificently endowed with eloquence and learning have flourished, and all have failed to elevate the profession to its justly merited standard. It rests upon the members of the profession to do this; we may whine before the legislature; we may grumble at the community; we may scoff at the incompetent, and abuse individuals, and still we will be mortified by our associates frequently passing us by and employing the verriest itinerant quacks. These evils can be remedied, and who is the member who would not lend his energy to the good work. We must lay before the public some practicable way of deciding who is the physician and who is the empyric. When they can do this the intelligent will employ the physician, and the ignorant will soon know

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and be ashamed to employ the quack; our members would no longer be suspected of being tricksters; our profession would be raised to a higher grade, and each practitioner would receive personal benefit from the change. We must create the criterion; we must agree upon a standard, acknowledged by one and all of us, by which we will recognize each other.

Organized co-operative effort is the most important element of the present progressive age. By acting upon this important principle, which has so rapidly utilized material heretofore supposed to be worthless, we can radically exterminate the scrofulous evil which has ulcerated and enervated our profession down to a mere skeleton. This co-operative action we can exercise in this association. Every member should attend its meeting regularly, so that it may become what it should be—an association of genuine physicians, competent to mature a code of ethics to guard its portals against the admission of any pretender; thus it would soon be known as the criterion by which physicians throughout the State would be known. Let each member when he returns home urge his colleague to become a member; let him at once set up the standard and reiterate that the members of this body are physicians, and that no other are known to be competent.

In a short time all who can produce satisfactory evidence of legitimacy will apply for membership, and those who cannot produce this evidence, will either not apply or be rejected. Then when it shall be known that all regular or competent practitioners concur in the statement that there are no legitimate practitioners in the State who are not members of the State Association, it will soon be known who are the meanest. We are frequently asked if a certain practitioner is a good physician? The question is an embarrassing one, and policy dictates an evasion. When we shall have adopted the standard, we can say at once that he is not a member of the State Society, and it will almost invariable be asked if this is the criterion? Thus will it be rapidly spread among the people, and then it will be settled in all communities who are authorized to practice medicine, and without the least doubt the great majority will employ only the authorized, as the most ignorant invariably prefer the competent to the incompetent, when they know which is the true and which is the false.

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VARIOLA.

BY H. K. KENNEDY, M. D.

Variola, than which no more fearful disease has preyed upon the human family in the past year, has mocked our progress in medicine, and humiliated us as a profession, with the fact that the per cent. of deaths from it has been fully as great as it was any time in the last century.

As if to avenge itself for the wrong done it by Jenner, when he taught that vaccination is a prophylatic for small-pox—it has scourged all our cities, and spared but few of our towns. From Philadelphia the frightful intelligence comes that three thousand deaths in the past year, in that city, were from small-pox alone. In the coal regions of Pennsylvania this disease is sweeping the miners away without let or hinderance. Boston, Philadelphia, Baltimore, Richmond, Charleston, Nashville, St. Louis, Chicago, and scores of towns of less importance, are all helping to swell the grand total of deaths from this most horrible of all diseases, till we must bow our heads and acknowledge, in shame, that our profession attains no better results to-day than did the profession a hundred years ago.

Paint, color, or avoid the truth as we may, the humiliating fact will remain the same, that in the past year, of all cases of small-pox in the United States, at least twenty-five per cent. have died.

I propose to give a brief sketch of this epidemic as it appeared in Shawnee county—its introduction and history.

In November S. H., who lived in Wabaunsee county, returned home from St. Louis; the same week was taken sick, for which he "doctored" himself for several days, and finding himself no better, he then sent for a physician, who diagnosed the case bilious fever. Before the physician made his third visit the patient died—died upon the eleventh day of his illness. Ten days after the death of H., his nurse R. was taken with a severe headache, pain in back and fever. As he lived twelve or fourteen miles from a physician, he made to Silver Lake, a village

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on the Kansas Pacific Railroad, twelve miles west of Topeka, and took a room with a gentleman who combines the selling of goods with the practice of medicine, and his residence is over his store. The day after R. arrived at Silver Lake, the eruption of small-pox made its appearance, where he died upon the twelfth day of his illness. The same week of his death, the merchant's clerk took the disease, and was removed to a pest-house, established by the county. Eleven days after the death of R., T., who assisted in burying him, was attacked, and died on the thirteenth day. Of three hired men at T.'s place, all were attacked, one of whom died on the eleventh day. Another man, W., who was in Silver Lake the day R. was buried, purchased a suit of clothes in the store, but after imbibing freely of whisky at the various places in the village, returned home without the clothes. Twelve days afterwards he was attacked with small-pox, and died upon the thirteenth day of his illness. The family with whom he lived (consisting of seven members) all escaped, notwithstanding the house in which they lived contained but one room.

Mr. O., who purchased an overcoat at *the* store in Silver Lake, carried his little girl to school in it—she took the disease but recovered. Her sister was next attacked, and died upon the tenth day of her illness. G., who assisted in burying Mr. O.'s daughter, took the disease, and died upon the thirteenth day of the attack. A negro man purchased some articles in Silver Lake; returned to Mr. E's, where he was living; ten days afterwards he was taken sick; remained at Mr. E.'s till the tell-tale eruption of small-pox peeped through the skin, covering the forehead, when he was *immediately* removed to the pest-house, and died upon the eleventh day of his illness. Mr. E.'s family, eight members, all took the disease in different degrees, from the mildest varioloid to the most malignant confluent form, all recovered. In Mr. C.'s there were four children and a nephew, all adults, all of whom took the disease; the nephew and three children died, all deaths occurring before the fourteenth day. Mr. W.'s family, consisting of himself, wife and five children, took the disease; the wife and four children died; the wife and two children had no eruption to indicate the disease; for some cause there seemed

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to be a want of vitality in these cases which kept the disease from fully developing itself. As their home was on the bank of a large pond, known as the Lake, I attributed this want of vitality to malarial poison in the system. Whatever the cause may have been, the fact remains the same, and cannot be controverted; that Mrs. W. and her two children died of varioloid, although the characteristic eruption of that disease was not perceptible, either to the sight or touch, and there can be no doubt that this wide-spread epidemic in the county, originated from the case of H., who died without small-pox eruption ever manifesting itself; yet that he had small-pox is proved beyond a doubt, by the fact that R. who nursed him took the disease, although he had not been off the farm upon which he lived for over one month. Another fact: B., who shaved A. and prepared him for the grave, was attacked with the disease five weeks afterwards; B. died upon the thirteenth day of his attack. Here we have another anomaly in this disease—an attack five weeks after exposure. You say this is contrary to your preconceived ideas of small-pox. I cannot help that; am only reporting facts as they occurred in my practice in the past winter; do not pretend to explain the causes; leave that for the curious in these matters. The disease kept spreading east till it made its appearance in Topeka, in the family of Mrs. P. Two children had the disease, one of whom died. An elder sister, out at service, after visiting her home, spent the evening at T.'s; the husband took the disease, and died on the thirteenth day. The wife and six children, all were attacked, none of whom died. The son of the family from whom Mrs. P.'s girl took the disease, died upon the thirteenth day. The father was next attacked; had a slow recovery; the mother, who was exposed, escaped; had been revaccinated a few weeks before. Through the carelessness of a nurse, the disease spread into many families. In the city pest-house, of which I had medical charge, there were in all thirty-six cases, with a loss of four, two of whom died within thirty hours after coming under my care. The total number of cases in the county was one hundred and five, of whom twenty-six died. A confluent case—Mrs. B. had the disease the second time, having had it twenty years before. Of the one hundred and five cases,

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sixty-five had been vaccinated—only twenty three revaccinated, and forty cases not vaccinated at all. Of the twenty-six cases proving fatal, only five were ever vaccinated, and three out of the five revaccinated.

One man, twenty days after vaccination, which worked well, passed through the various stages to maturity, took the small-pox in the most malignant form, of which he died upon the fifteenth day of his illness. A second case was attacked forty days after a successful vaccination, with malignant confluent small-pox—recovered. I report the two above cases, not for the purpose of weakening vaccination, but report them because they are facts, exceptions to the well-established, general rule, that vaccination is a preventive of small-pox. No fact is better established than there are persons who are so susceptible to the poison of small-pox, that one attack of the disease is no immunity against a second, or even a third attack. We certainly have no right to expect vaccination to be a better preventive of small-pox than an attack of the disease itself. I cannot account for this idiosyncrasy in certain individuals any more than we can tell why vaccine virus should remain dormant in the arm for several weeks, then become active, and pass through the various stages of a successful vaccination. Dr. Wyman reported two such cases to the Shawnee County Medical Society. In one case the virus had remained nearly six weeks, then became active; in the other, four weeks elapsed from the insertion of the virus till it began to work.

Every epidemic has its lessons for us if we will only heed them. The great lesson taught by this one is the truth of the doctrine advocated by Jenner, that vaccination is almost a certain preventive for small-pox; also the importance of re-vaccination, as well as that we must learn to distinguish between the true and spurious vaccination. My observation in the past winter has taught me to place no reliance in virus from a *revaccination*, especially as a preventive against an epidemic so malignant as the one we have suffered from here. Vaccination is trifled with, with most physicians, if it takes, as they express it in common parlance, it is sufficient. There is a deplorable ignorance in regard to this subject among physicians as well as the laity. When in the legislature the late

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Dr. Copeland, of Osage Mission, pressed a bill requiring all children attending public schools to be vaccinated by a regularly educated physician. Dr. Johnson, of Miami county, not one of that sort, very contemptuously replied: "It is all folly to require anything of the kind. A child falling upon a piece of glass can vaccinate itself if the glass has vaccine virus upon it." "Aye, if the glass has any virus upon it." It was well said; but does it not require some knowledge on the part of the vaccinator to distinguish between the true and false vaccination? It certainly does. During the past winter, when vaccination was the order of the day in Topeka, (as each vaccination brought a dollar to the vaccinator) virus was procured from all sources; many physicians made no difference between that from a primary and a revaccination; a result of this carelessness was to weaken the public confidence in vaccination, notwithstanding the average per cent. of deaths from small-pox in this county in the past year, has been at least twenty-six. Every medical journal, falling from the press, contains an article, the writer of which claims the honor of having discovered the means by which this Samson, which is slaying its thousands, may be shorn of its power to destroy. To-day the sulphytes are a specific; to-morrow xylol, next cohosh, and so the change is rung from one article to another in the materia medica. Still specifics, to the contrary notwithstanding, this pestilence is sweeping thousands of our fellow-citizens into the grave. Only a few days ago the glad tidings of great joy was published to the world by a member of this society, Dr. J. P. Root, United States Minister to Chili, South America, that he had discovered a certain specific for small-pox. A specific very simple indeed—only to convert the stomach of patient into a crucible for the manufacture of chloride of lime —only this, and nothing more necessary to disarm small-pox of all its terrors. The Doctor, in language most vivid, describes his own case: "I was attacked very violently with symptoms of the gravest nature, being those of the 'confluent,' 'hemorrhagic,' 'scarlatinous,' and 'erysipelatous' character. Feeling the soreness of the throat increasing, counting the pulse as it gradually rose from its natural beat to ninety, one hundred, one hundred and ten, one hundred and twenty, one

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hundred and thirty, one hundred and forty, and more, with drops of blood oozing from the mucous surfaces and hemorrhagic spots appearing here and there on the surface of the body; with the skin, especially of the face and head, becoming more and more tumefied; with erysipelatous engorgement every hour; with intense febrile excitement steadily increasing, and being certain that speedily the brain would refuse its normal work, and hopeless delirium ensue." That the Doctor recovered as he did is evidence that he had simple non-malignant small-pox. Iron muriate tincture and prepared chalk, given alternately, is the talisman by which the Doctor disarms small-pox of its terror. As he says, the two form chloride of lime, and it is this latter which neutralizes the poison of variola. As it is well known that chloride of lime fails to destroy the infection of variola, it must be powerless to neutralize the poison in persons affected with the disease. As the fact is well demonstrated that boiling water will destroy the infection of small-pox, why not fall back upon the McElroy treatment, boiling water as a specific for small-pox. We cannot deprecate the so-called specifics enough, especially specifics for small-pox; they are the will-o'-the-wisp which allure so many men of our profession from the plain of practical, common sense to fanciful theories wove by gentlemen more fitted for poets than practitioners of medicine. If our country would be free from this terrible scourge, it must not depend upon specifics, but upon vaccination, as taught by Jenner, and by the way this epidemic has impressed upon us the importance of compulsory vaccination, for in that lies the safety of our people from another visitation like the present one, and not in specifics, although gentlemen tell us that they have discovered specifics for this disease, so none need die from it. The reputation of the so-called specifics depends upon their being given to patients with non-malignant small-pox—patients, the most of whom would recover if not treated at all. And every patient having malignant small-pox will die if treated by any specific ever heard of. When gentlemen find a specific by which they can save fifty per cent. of malignant small-pox, then they may claim a great honor indeed. In the meantime if they wish to astonish the world, they had better search for

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the elixir of life, worry their brains in quest of the philosopher's stone, or try their hand upon perpetual motion, but for the love of suffering humanity say nothing about small pox specifics in this day, when so many are dying from that disease.

My treatment was systematic, as I regard it as the only rational treatment for small-pox. Each patient was treated according to symptoms, or each symptom in each patient was treated by the remedy indicated.

A few weeks ago we read in the Philadelphia *Medical and Surgical Reporter* a translation from the German, of vinegar as a prophylactic for small-pox. I regret very much that I knew nothing of this till near the close of the epidemic in Shawnee county, as my opportunity for fully testing it had almost passed away before I became acquainted with the claim set up. You who read the article alluded to, will remember the author failed to say how many of the persons treated with vinegar had been protected by vaccination. Mr. Boyle's family, consisting of wife, four children and her brother, were all exposed to small pox, the husband having it in the most malignant form; all were vaccinated. Four days after they were first exposed, I ordered vinegar for them all, as recommended by the writer alluded to. The children and brother all took the disease—three mild varioloid, and two small-pox distinct. The vinegar seemed to have no control over it; the disease was modified, as we might expect, by the vaccination. Whether vinegar is a prophylactic for small-pox is a question to be settled by the profession.

PRACTICAL MEDICINE.

BY GEO. W. HALDEMAN, M. D.

That it is a characteristic of human egotism to exalt the age in which one lives as the most brilliant of ages, and the country of which one is a citizen as the greatest of all the nations of the earth, are propositions which, I presume, none will

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question. The old Pharisaism, so beautifully portrayed in the gospel, still continues to be a weakness of individuals as well as of nations. And yet a candid comparison, however imperfect, of the present with the past, can certainly not be offensive to the most virtuous modesty. Every one must know that the great *facts* of the nineteenth century stand out so conspicuously above the achievements of any preceding century, that it would amount to an affectation of humility not to recognize and speak of them.

For proof, we need not travel beyond the bounds of practical medicine and its collateral branches to discover the truth of the foregoing assumption. As members of the medical profession, we are justified, I think, in congratulating ourselves that we live and labor in the closing years of such an age, so prominent for the rapid advance which has been made in a knowledge of the means and a discovery of the appliances calculated to strengthen the claim of legitimate medicine to be styled and recognized as a *science*, whose principles are fully as clearly established as those of law or theology. While we freely admit the existence of some imperfections in the former, we think we have a right to claim for the science of medicine a parity and equality with the other professions and sciences in regard to certainty and importance; indeed, we can never hope to equal, much less to excel, the latter, because of the intricacies, uncertainties and discrepancies which pervade them.

The annals of no other period, although medicine, in some form, has been cultivated from the earliest ages, by all nations, and by all classes, furnish a counterpart. A common desire seems to pervade the minds of all its votaries, and a common enthusiasm to animate their purposes to maintain its honor and dignity, to exalt its standing, to extend the boundaries of its usefulness, and, by unwearied diligence, to avail themselves of every means to adorn its pages or to enrich its stores. Questions, too, of the same vital importance to the laity, have neither been neglected nor overlooked; but means looking to the prevention, as well as cure of disease, to the care and cure of the insane, the blind and the dumb, have been investigated and perfected, with a zeal and pertinacity that know no bounds,

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And as the good work goes, the mystic lore of ages, and the accumulated experience of the past centuries, as well as the rich experience of our forefathers of the earlier portions of the present century, are appropriated and made tributary to the welfare of humanity.

Without stopping to inquire the time of day in the world's progress, recent investigations and discoveries are announced with electric speed, and published for the benefit of all—the professional and non-professional—in the numerous avenues for the distribution of knowledge. The discovery of a few days ago, instead of being hid under a bushel, or, like the one talent, buried in the ground, is at once made known through periodicals, monographs and books. No one who has taken upon himself the prerogatives and immunities of our vocation, should claim clergyable exemption from the duty which devolves upon the humblest, to at once contribute his mite, however trifling, to the common stock. Had Paracelsus, in some respects a great man, pursued this course, it is not likely he would have been styled "the greatest fool of physicians," and the "greatest physician of fools." He averred that he had discovered a panacea that would instantly cure all the diseases to which flesh is heir; and yet he died a drunkard and a sot, with a bottle of his "immortal catholicon" in his breeches pocket, with no one to mention "his name but to blame." And how was it with the Chamberlins, who discovered the obstetric forceps, that great desideratum in midwifery? It so happens that little is known of these persons except their names; and they have deservedly sunk into comparative oblivion," says Prof. Meigs, "that ought to overtake all those who, whether by accident or the possession of genius, come into the enjoyment of facilities that ought to be the common property of humanity, but who, instead of divulging them, and spreading their use and employment as far as the want of them extends, are induced, by a sordid thirst for gold, to retain them within their own hands, and sometimes inhumanly permit the secret to perish with them, rather than give it all the publicity and currency which its importance entitles it to. Such, however, is the spirit of quackery and empiricism, under whatever guise or in whatever art; and the fate of the Cham-

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berlins, whose history is almost forgotten already, is but a just retribution for their base reservations of so valuable a secret."

But, to my mind, the best means by which to preserve the vitality and promote the progress of medical science are to be found in the prompt, free and liberal interchange of thought, observation and experience, between individual members of the profession. To advance this object the profession has been organized into societies, county, state and national; and who will dare to say that an untold amount of good has not been accomplished, to promote social feeling and to elevate the professional standard, when these organizations are established on a proper basis, and when all questions not germain to the science are resolutely excluded? Every one of us who knows by experience whereof he affirms, is convinced that meetings, such as those of the Kansas State Medical Society, are elevating and invigorating in their tendency. I need hardly say that thus physicians are once in a while, yearly if not oftener, lifted out of the deeply worn rut which routine, selfishness and prejudice always engenders, and which the circumscribed limits of their daily professional labors create. They are in this way, cooked in the crucible and tried in the fire, which rubs off the rust and separates the gold from the dross. And while we are thus forced to estimate ourselves and our supposed attainments less highly, we are apt to have the satisfaction of knowing that we have been led to entertain a more kindly feeling toward our brethren and to imbibe an increased love for the work in which we are engaged and for the cause at large. We gain strength for ourselves individually and collectively; and by this we realize, moreover, that the cause is being strengthened, redeemed, regenerated and disenthralled.

Our experience in the benefits accruing to the cause in general by the foregoing means, justifies us in adopting the language of Prof. Gross, addressed to the Alumni of the Jefferson Medical College. He said: "The maxim that 'in union there is strength,' has long been recognized and acted upon by all classes of men, of whatever creed, interest or pursuit. In no other age of the world has its practical importance been

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more fully illustrated than in the present, emphatically an age of progress and improvement, far in advance of any that ever preceded it. Men massed together can accomplish in a day what single-handed labor cannot accomplish in a lifetime. All great efforts are achieved by co-operation and concert of action."

But although we have abundant cause for gratulation, that we are accounted worthy of being even *gleaners* in this propitious age, in this vast field, whose fruits are ripening under the cultivation of intelligent experience and enlightened observation, we have to confess that it is not all gold that glitters; that not all that has been advanced under the name and guise of science is worthy of credence, or that there are no hindrances to its onward march, even in this enlightened era of the world's history.

We should indeed be greatly in error were we to conclude that, though knowledge of every kind is increasing, credulity is diminishing. I think the renever was a period more dominant with delusions than the present, and never one when they were more wild and untenable. Our own country has hatched and given to the rest of the world Thompsonianism, Electicism, so-called, and a host of other *isms* too numerous to mention. On the other hand, Europe has been dealing out to us, with a lavish hand, an endless brood of *pathies*. And the *nicest* and *sweetest* of these is homœopathy, which, for pretentious vageries, unblushing pretentions and unvarnished falsehood, has no parallel in this or any other age.

But the same cause is at the root of all delusions, and it would seem that there must be some "tub to amuse the whale." These moral epidemics—if they may be so termed—rage for a while, until the credulity which encouraged their growth is satisfied, when they sink below the horizon, to be succeeded in the lapse of time by others equally ridiculous, indefensible and unscientific.

Mankind must be *amused*, and if they will be, it is perhaps right that they should be *deceived*. This credulity seems to pervade all classes, and causes the same confidence to be reposed in the ignorant and mercenery pretender as in the skillful and learned physician, and batters down the distinction

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that should be made between science and empiricism, thus confounding the high-minded cultivator of a noble science with ignorant groveling pursuers of a low trade. Hypocrites declares that "in the course of a long life, which had been devoted to the service of his fellow-men, and which had not been passed without some degree of renown, he had been oftener blamed for misconduct than praised for success."

But is there no sunny spot in this clouded atmosphere of delusion—no encouragement in those cycles of follies and prevalence of credulity, to hope for future improvement? Is the human mind in the same enthralled condition as in former epochs? Far from it. In former times knowledge was confined to the few; and mystery, itself imperfect knowledge, pervaded the actions of those who pretended to minister to the necessities of their fellow men, while superstition and credulity alike tainted the learned and unlearned. A wide diffusion of information has dispelled the former, but for the latter, unfortunately, the human mind still affords a resting place. In other words, science is now freed from *superstition*, but we have many lamentable evidences that *credulity* still clogs its onward march.

Let us then avail ourselves of the privileges we possess, and animated by the noblest impulses, let us cordially co operate to give to medicine a new direction, and aid in advancing those great improvements which its interests so imperiously demand. And even if we do not arrive at that point of absolute perfection, which has sometimes perhaps been so sanguinely predicted, we may at least "by infusing into the science the genuine spirit of reason and philosophy, render it richer in glory and more fruitful in benefits to mankind." Thus pursued with an undeviating experience, we cannot fail to place medicine on a solid basis, never again to be convulsed by the revolutions of opinion or the vicissitudes of fashion.

To conclude, I have merely to add that "I know of no title more honorable than that of physician, and no ministration more worthy a loving soul than that which is constantly performed in chambers of sickness by those who practice the art of healing; and if we could be physicians indeed, practicing medicine according to the will of God, and knowing nature as

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the term implies, we must know the laws which his finger has inscribed for our guidance, not only on every structure of the human organization, but on all created forms, animate and inanimate, by which we are surrounded. This, it is true, involves the necessity for patient and laborous study in the light of medical philosophy. To those having the proper devotion, and following this light, success ultimately is secure; but ultimate and utter disappointment in reputation to those who follow the *isms* and *pathies*, which, like the will-o'-the-wisp, shall only continue to mislead the ignorant and credulous, until all such deceptive lights shall fade away beneath the blazing sun of scientific medicine."

PROCEEDINGS OF THE KANSAS STATE MEDICAL SOCIETY.

LAWRENCE, KAS., May 20, 1874.

The Kansas Medical Society met in annual session, in Odd Fellows' Hall, Lawrence, May 20, 1874, at 2 o'clock P. M. In the absence of the president, the first vice-president, Dr. J. S. Redfield, called the society to order. The secretary being absent, the assistant secretary, Dr. A. Newman, acted as secretary.

The minutes of the last meeting were read and approved.

The following members were present during the session, viz: Drs. A. G. Abdelal, W. W. Cochrane, J. M. Carpenter, A. Fuller, H. K. Kennedy, A. H. Lanphier, G. L. Lewis, R. Morris, F. D. Morse, C. V. Mottram, A. Newman, S. F. Neely, S. B. Prentiss, F. E. Porter, J. S. Redfield, T. Sinks, D. W. Stormont, J. H. Stuart, W. M. Shean, D. W. Thomas and A. M. Wilder.

Drs. Neeley, Carpenter and Lanphier were appointed to fill vacancies on the Board of Censors.

Several gentlemen were proposed for membership, and their names were referred to the Board of Censors.

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The president, Dr. Kennedy, and the secretary, Dr. Stormont, appeared and took their places.

The Censors reported favorably on the following applications for membership, all of whom were elected and signed the constitution, viz: Drs. V. G. Miller, of Lawrence; V. W. May, of Lawrence; I. S. Manning, of Ottawa; J. T. Scott, of Holton; S. W. Brock, of Sabetha; W. L. Lincoln, of Ottawa; W. L. Schenck, of Osage City; C. C. Furly, of Wichita; J. McMurray, of Perry; W. D. Hoover, of Paola; J. H. Van Eman, of Tonganoxie; W. J. Srofe, of Tonganoxie; H. P. Woodward, of Wamego; M. M. McConnell, of Lawrence, and Wm. Gough, of Atchison.

On motion of Dr. Thomas, the following resolution was adopted, viz:

Resolved, That a member, whose name has been dropped from the roll for non-payment of dues, as provided in Article IV, of Section 4 of the By-Laws, may be restored to membership, either by paying up or by a new election.

The president appointed as the committee on nominations, Drs. Newman, Thomas and Schenck.

Dr. Newman, from the committee on arrangements, invited the members to visit the State University, and moved that the society do now adjourn until 7½ o'clock, for that purpose.

Which was carried.

EVENING SESSION.

The society met according to adjournment, the president, Dr. Kennedy, in the chair.

The treasurer submitted the following report, viz:

ATCHISON, May 20, 1874.

W. W. COCHRANE, Treasurer,

In account with the Kansas Medical Society.

	CR.	DR.
Amount received for fees and dues past year.....		$73 00
Paid order to Dr. Sinks....	$18 00	
Paid order to Dr. Brock.	18 00	$36 00
Balance on hand.....		$37 00

Respectfully submitted,

W. W. COCHRANE, *Treasurer.*

On motion of Dr. Sinks, it was referred to an auditing committee, consisting of Drs. Sinks, Furly and Redfield.

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The committee appointed to examine and audit the accounts of the treasurer, would respectfully report that they have examined the same and find his report correct. Respectfully submitted,

T. SINKS,
J. S. REDFIELD,
C. C. FURLY.

On motion of Dr. Stuart, the report was adopted.

Drs. Stormont, Mottram and Lanphier were appointed the committee on publication.

Reports from regular committees being in order, Dr. Sinks read his report on recent advances in chemistry. It was referred to the committee on publication.

Dr. Stuart made a report on gynecology; which was referred to the committee on publication.

Dr. Mottram reported a case of apolexy. Referred to the committee on publication.

Drs. Todd, Taylor and Woodson, of Kansas City, were introduced to the society by Dr. Wilder, and invited to participate in the discussions.

Dr. Shean, of the committee on materia medica, read the report on that subject; which was referred to the committee on publication.

Dr. Newman reported a case of fracture of the internal malleolus; which was referred back to the author.

The nominating committee submitted their report, which, after various amendments, was adopted as follows, viz:

OFFICERS FOR THE ENSUING YEAR.

President.—Dr. J. S. Redfield, of Fort Scott.

First Vice-President.—Dr. T. Sinks, of Leavenworth.

Second Vice-President.—Dr. R. Morris, of Lawrence.

Secretary.—Dr. D. W. Stormont, of Topeka.

Assistant Secretary.—Dr. M. S. Thomas, of Leavenworth.

Treasurer.—Dr. W. W. Cochrane, of Atchison.

Board of Censors.—Drs. S. F. Neely, A. C. Van Duyn, H. K. Kennedy, J. M. Linley and G. W. Haldeman.

REGULAR COMMITTEES.

Practical Medicine.—Drs. A. H. Lanphier, J. L. Wever and F. Speck.

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Surgery.—Drs. M. S. Thomas, D. W. McCabe and G. L. Lewis.

Obstetrics.—Drs. H. K. Kennedy, S. W. Jones and A. C. Barlow.

Materia Medica.—Drs. W. B. Carpenter, W. M. Shean and I. S. Manning.

SPECIAL COMMITTEES.

Recent Advances in Physiology.—Dr. W. W. Cochrane.

Infantile Diseases.—Dr. J. H. Stuart.

Indigenous Remedies.—Dr. G. R. Baldwin.

Concentrated Remedies.—Dr. C. C. Furly.

Venereal Diseases.—Dr. D. W. Thomas.

Uterine Hemorrhage.—Dr. A. Newman.

Diseases of Nervous System.—Dr. S. F. Neely.

Use and Abuse of Alcoholic Liquors.—Dr. W. L. Schenck.

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION.

Additional Delegate for 1874.—Dr. C. V. Mottram.

Delegates for 1875.—Drs. V. W. May, W. L. Schenck, D. W. Stormont, A. H. Lanphier, S. F. Neeley, J. S. Scott, C. C. Furly and F. E. Porter.

On motion of Dr. Stormont, each delegate is authorized to appoint a substitute, in case he cannot attend.

Place for holding the next meeting, Topeka; time, third Wednesday in May, 1875.

On motion of Dr. Schenck, the society adjourned until tomorrow morning at 8 o'clock.

THURSDAY, MAY 21, 1874.

The society met according to adjournment, the president, Dr. Kennedy, in the chair.

The minutes of yesterday were read and approved.

Dr. Porter read a paper on salivation in pregnancy. It was referred to the committee on publication.

Dr. Kennedy, the retiring president, read his Valedictory Address; which was referred to the committee on publication.

On motion of Dr. Sinks, the thanks of the society were tendered Dr. Kennedy for the courteous manner in which he has presided at this meeting.

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On motion of Dr. Stormont the following resolution was adopted, viz:

Resolved, That the thanks of this society are hereby tendered the physicians of Lawrence, for their kindness and courtesy to us on this occasion; and to the Odd Fellows for the use of their hall for our meetings.

On motion of Dr. Neely, the physicians of Topeka, who are members of this society, be appointed a committee of arrangements, with instructions to obtain, if possible, a reduction in railroad fare to the members attending the next meeting.

On motion of Dr. Sinks, the society adjourned, to meet in Topeka on the third Wednesday in May, 1875.

D. W. STORMONT, *Secretary*.

VALEDICTORY ADDRESS.

BY H. K. KENNEDY, M. D., TOPEKA.

GENTLEMEN:—Allow me, before adjourning for another year, to say a few words on the scope of our society—its aims and the results our activity has been rewarded with to the present moment. Let us throw an impartial glance back over the way we have already traveled, and a cheerful one towards the point at which we hope to arrive.

Fifteen years ago the first session of the Kansas Medical Society was held in this city. Each and every one at that time heartily professed to feel the want of an organization uniting all reputable members of our profession—in the then territory—that they might meet annually and make reports of facts, observations, investigations and researches, experiments and the results thereof. The founders of this, our society, intended, in fact, to open for the medical profession in Kansas a great clearing house, where the exchange of ideas, observations, and the results of each others experience, was to take place in order to bring into the reach of each individual member the fruits of the combined labor of a whole body. The found-

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ers, further, nobly intended by this organization to foster that friendship and disinterested mutuality that is so becoming to and ought to be cultivated among the members of a profession that undeniably, is the most liberal among all professions. Now when we ask ourselves the question: Have we met the expectations of those founders? we must blushingly say that in a great measure we have failed to do so. At best, there is but little to boast of. Though, from the start, this society assumed an itinerant character, the better to afford its members from different parts of the State an opportunity to attend—of those whose honor it was to organize this body, but few are with us to day. They are scattered far and wide. Some of those manifesting the warmest enthusiasm at the creation of our union, have long since ingloriously left the banner of professional brotherhood and co-operation. Of course had our society been able to take, at one bound, position with similar societies half a century old, they would have doubtless remained with us—although it had been more for the share of honor than the share of labor in prospect. But as it was they shirked before the struggle with the difficulties they ought to have faced with manly fortitude and untiring perseverance, both in behalf of the furtherance of their own knowledge and in behalf of the honor and standing of this society—this society, which the medical world and the public at large expect to do its share in the salutary work of ennobling our profession, a share adequate to our strength in numbers, our degree of scientific developement, our means, our practice, and other advantages. They seem to forget altogether that the present development of *medicine* is the conquest, not of a year or a decade, or even a century, but at least of a two thousand years struggle, in which immortal champions gloriously joined, thus contributing the trophies of life-long labors for the development, enlargement and elevation of our science. They forget that the function of medical societies is to make new scientific statements, rectify, amplify or correct old ones for the benefit, not only of our professional interests, but also for the higher interest of public hygiene. They seem to be ignorant of the fact that modern medicine is established on solid foundations; that medicine, now-a-days, means nature and its study; that

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the method of this study is entirely changed from what it was a score of years ago. It now requires the diligent and faithful co-operation of whole societies where the least contribution of an idea, an observation, a research, the communication of a small item may become the point of issue of deep discussion. and give the first impetus to most important results.

They seem to overlook that undeniable truth, acknowledged by the universal scientific world, that exchange of ideas and facts is the only means to enlarge knowledge and keep alive that habit of thinking so necessary to the conscientious practitioner in our profession. There are many who say that we should find no fault with those who have grown tired of the labor, it being the most trying of all lessons for citizens of Kansas to learn to labor and to wait for results. It is not in accordance with their every day experience. They are in the habit of seeing great enterprises projected to-day, and to find them in full success to-morrow. When our society was organized, Kansas was represented by a stripe upon our national flag. The pioneer corps of that great army of settlement, which, ever like the course the empire is westward taking its way, was but a few miles west of this city. Our prairies were roamed over by vast heards of buffalo, and the numerous tribes of the "Lo" family. To-day, of all the stars in the sky of our country, none is more glorious than that of young Kansas. The buffalo have nearly passed away, and the Lo family have either passed beyond our border towards the setting sun, or succumbed to the influence and sway of civilization. The so-called American Desert has been changed into fruitful farms and beautiful homes. Populous cities and handsome villages have been built with the improvements and advantages of eastern cities. The genii of Aladin's Lamp have been put to shame by the more marvelous feats performed in Kansas by skill and labor. Is it any wonder, some may ask, that men grow tired and refuse to labor, and then wait the slow march of years for results? But let us not forget the physician as such, is not a pioneer in the above sense, he is not a waymaker for civilization, but an integral part and a faithful follower of civilized society, who consequently carries within himself not only rights, but duties. These, our duties in my opinion, are

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of a double nature. Firstly, in regard to the profession of which we are members; secondly, in regard to the State of which we are citizens. In both respects allegiance to our society and perseverence in our labors are urged upon us imperatively; and I do not hesitate to state, and you will as readily believe me, that with self and mutual instruction, combined with zeal and modesty—let us not forget modesty—we shall unfailing be able to elevate our profession in this State, helping thus to glorify Kansas. There are numbers of physicians in this State who never attend our meetings, whether they absent themselves from motives of selfishness in order to withhold from us their experience, or from egotism, deeming it impossible for them to learn anything they did not know long since, I do not pretend to say. But what I will say is, that they will learn nothing, and forget all they know, for, by an immutable law of our nature, we cannot remain stationary, but must advance or retrograde.

Fear is said to be contagious. In my opinion neglect is not less so, and thus this moral epidemic spreads within our societies—that members fail to perform the duties assigned them —even committees do not always make their reports. Lord Nelson said to his soldiers at Trafalgan: "England expects every man, this day, to do his duty." So I say to you, the medical world and the State of Kansas expects every man in our line to do his duty. This being a fact adhering to the nature of our profession, it behooves us to embrace every op portunity to advance. Excelsior should be the motto of every true physician; and I know of no aid equal to medical societies for the advancement of physicians. Medical societies, and medical societies only, are able to ennoble our profession in the estimation of the public. I cannot point too often to this vital want; and before surrendering the honor of the chair to my worthy successor, I would earnestly ask for a diligent and faithful co-operation. Let us bring together the results of our experiences and observations; let us accumulate the fruits of our combined labors; let those accustomed to the exact method of investigations by microscope and chemistry, give us their own researches, or those of others explained; let those wielding a clever pen give us their papers read and discussed

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before this society; let those assiduous students give us their readings of interesting articles, their views and criticisms on recent works of medical literature. At the same time, let us make *modesty* a tacit law of ours. Let each one write this law in golden italics in the code of his plain reason, and believe me, a heavy, depressing burden will at once be taken from many a doctor's head—I mean the burden of would-be erudition. Freed from the burdensome fetters of vanity, you will work easier, and at the same time encourage the timid.

An old simile compares science with light—the more you give of it the more you have yourself. Then let every one make his light shine in its full, bright luster; but for modesty's sake, no flaring, no flickering. That gives much smoke and smell, but no light to the spectator, nor does it reflect credit on the torch carrier. In short, if we would make this society what its founders contemplated it to become, let us each and every one resolve to do our share in the furtherance of this good work. Let each one perform the duties assigned him faithfully and with zeal and accuracy, then our society will become an institution for the elevation, advancement and protection of our profession. Let us take new courage, for though the past is almost lost for our noble cause, the future surely is ours. I leave the chair, which you honored me with one year ago, by asking you to accept my thanks for your kindness and courtesy.

DISEASES OF WOMEN.

BY J. H. STUART, A. M., M. D., OF LAWRENCE.

As to the history of Gynæcology, but little that is satisfactory can be gathered anterior to the time of Hippocrates, about 400 years B. C. From allusions by subsequent writers, and from hieroghyphics, it may be inferred that the Egyptians knew considerable of the science of medicine, and of this branch in particular. In the writings of Moses, we also find

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references to matters that imply considerable knowledge in this respect.

But to Hippocrates belongs the distinction of establishing medicine on the only certain and reliable basis—that of *rational experience.*

Before him, it was so mixed with philosophy that it could not be reckoned a science at all. From the time of Hippocrates' treatises on diseases of women began to make their appearance, Galen, Celsus, and others in the first and second centuries, gave excellent descriptions of several uterine maladies, methods of their discovery, and even alluded to the speculum vaginæ. Soranus, the biographer of Hippocrates, in the third century, wrote concerning the sexual organs in a truly scientific manner. Artius and Paulus Ægineta, near 600 years after Christ, prepared admirable digests and compilations of what was known up to their time.

The former of these writers, Artius, is spoken of by Thomas as showing "thorough knowledge of many disorders and means of investigation and treatment, which being re-discovered thirteen hundred years afterward, have in many instances been regarded by us as entirely new."

But there is this difference. Artius shows less acquaintance with proper therapeutical appliances than with the diseases themselves and means of their diagnoses; while, as Sir James Y. Simpson claims, the prevailing want of knowledge in our day is in regard to proper diagnosis.

He believes that our therapeutical resources are ample and efficient; that once having settled rightly as to what disease was before us, we were seldom at a loss what to do for it; but too often we do not find out what the matter is. Thomas says, "It is curious to see how, even in minor matters, the ancients anticipated discoveries which our cotemporaries have brought forward as entirely new. And thus it is with so many other modern suggestions that the student of ancient medical literature is most willing to admit the truth of the proposition formulated by Aristotle over two thousand years ago, that probably all wisdom and all art have often been already fully explored and again quite forgotten."

After the decadence of the Greek and Roman schools, the

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study of medicine passed to the Arabian school, which was dispersed by the burning of the Alexandrian Library 640 after Christ. Then came the dark ages, upon which a little light began to be thrown in the seventeenth century, but it was not until the beginning of the nineteenth, the present century, that the great achievements of which we are so proud to-day, began to be made. Having made this running historical account, I propose to remark briefly concerning the ordinary practice of this branch of medicine. Confessedly by physicians generally, there is no branch less satisfactory—every case almost is characterized by its own peculiar difficulties, and in some, at least, they may seem insurmountable. It may be well to recount some of them. One lady calls upon a physician to consult him concerning herself. She often has no correct idea as to what ails her, beyond that she has certain distressing symptoms. Another is sure to know what her ailment is, and recounts her symptoms in accordance with her settled convictions. Another may purposely endeavor to mislead and deceive the doctor, for some clandestine purpose. Now, each of these cases (and none of them are by any means uncommon) demands a special method of procedure to arrive at the truth of the matter. It must depend upon a right estimate of the value of the signs recognized. These arrange themselves in two classes, the rational and the physical: 1st. The rational, functional or dynamic signs, are those that are most readily, and in the main the only ones, recognized by the patient herself. They may be simply the perverted action of the organ itself that is the seat of the disorder, or it may be of some distant organ in sympathy with it, or it may be of the whole system; and mistakes are rendered more likely from the fact that more than one diseased organ, and more than one disease of the same organ may produce the same dynamic signs.

A patient came to consult me in regard to an affliction. She thought she could simply detail her sufferings, and that I could be able therefrom to administer to her relief. Her most distressing symptom was frequent micturition with intense pain following immediately the cessation of the flow. There was pain in the lumbro-sacral region, extending down into the thighs; also, there was a slightly profuse and considerably

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prolonged menstruation. Some of these symptoms might accompany an abnormal renal secretion, a malposed uterus impinging upon the bladder, anteversion, a versical calculus, or the presence of polypus. Hence I considered her account of the case of but little value, further than to direct me to the neighborhood of the affected organ. I stated to her the dilemma in which I was placed, and asked the privilege of appealing to the second class of signs, viz.: the physical symptoms, "which consist of those means of diagnosis, and particularly of those exercises of the senses of touch, sight, hearing, etc, by which we can attain a knowledge of the anatomical structure, form, density, color, position, etc., of the organ diseased." The patient preferred that the examination be not made, at least for a while, and that I exercise my judgment in the way of medication; and she agreed that if relief came not soon, she would accede to my request. With no medication beyond a bland diuretic, with an injunction to rest in recumbent posture, I awaited the privilege of further observation.

This came in two or three days, and a digital examination revealed an elongated and conical-shaped cervex, with a soft, flexible feel; and it seems as if it might impinge against the meatus urinarius.

On the introduction of the speculum, a small, deeply-red polypus about the size of a pea, was observed hanging just outside the os.

Another case was reported to me not long since that had but few rational symptoms in common with the above, except profuse and protracted menstruation. She had miscarried eight months before, and having suffered more or less since, had been prescribed for in a general way without any benefit.

On examination, the os was patulous, and within was felt a tumor, which I took to be a polypus of considerable size. After the use of sponge tents, a fibrous polypus of about the size of a hen's egg was detached.

The cases are referred to to indicate how unreliable the first class of symptoms are in diseases of women, when trusted by themselves. This uncertainty comes of various circumstances. In the first place, as has been said, several disorders of the

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female generative organs, give rise to very similar, and in some cases, to the same dynamic signs; and in the second place, the same disorders affect different women in different ways and in different degrees. This is often seen in the case of pregnancy as well as in diseased conditions. Again, the patient may have wrong notions of her case, and at the same time be disposed to persist in framing the complaints accordingly. Perhaps there are those present who may have witnessed epidemics of prolapsus and versions, when some pessary doctor has succeeded, by his tongue and manipulations, in convincing a few somewhat influencial women that they are thus afflicted. And finally, as has been said, the patient may really design to deceive the doctor from some clandestine motive. There is another uncertainty liable to impair dynamic or rational signs, which may be termed subjective, inasmuch as it exists in the doctor himself, and it may be so common as to have been observed by those present. It arises in part from a want of a proper acquaintance with this branch of practice, and a careless and imperfect examination of cases, so as to form correct and proper diagnosis of cases; the very nature of the practice tends to induce this carelessness. There is always a reluctance hard to overcome on the part of the patient, and generally among physicians, to take the necessary steps to thorough examination.

But it would seem to be the duty of the physician either to make preparations for this work or nobly decline it. As it goes now physicians are liable to slide into routine practice. They judge that because there is great similarity in the rational signs (and this is apt to be the case if leading questions are put), the disorders are about the same, and call for like treatment. Hence we find one doctor invariably prescribing a certain vaginal wash; another employs a certain prescription, to be exhibited always in the same manner; while still another finds the pessary the proper panacea for virgin and mother, indiscriminately.

The only proper method can be the use of every means that can possibly throw light on the case; and it must appear that chief among these is the employment of physical diagnosis.

The means and methods for this are now quite complete

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and available, and should be in the hands of every physician who attempts such practice.

The following appliances I believe are indispensible, even in ordinary practice among diseases of women:

First—The speculum. While the ordinary tube speculum will answer in many cases, if it be quite as large as the canal will admit, yet Cusca's bivalve, or some modification thereof, will be found generally the best adapted to our needs. The advantages of this are, that it is easy of introduction, and by it a much better view of, and access to, the cervex can be had. If Furguson's speculum be large enough to receive the cervex uteri, and admit of its inspection, its introduction is often both difficult and painful, and besides, it is not convenient for any operation.

The sound is quite essential as the speculum; indeed it cannot be dispensed with. By it we determine the depth, position and mobility or fixedness, and the character of abnormal growths. Often it is exceedingly useful in restoring the uterus to its proper place. As to the dressing forceps, sponge tents, and syringe, I need not speak more fully.

The method I have found to be most satisfactory in dealing with cases, is something like this: I allow the patient first to give her account of herself as fully as she will, with but little or no interruption. If afterwards I am not clear in my mind, I question her, but with much care to avoid leading questions, *i. e.*, questions that may lead her to think that I am hunting after any particular disease.

Having followed this course till I am satisfied that I can gain but little more thereby, I inform the patient that the case is not so clear as I desire it to be, and that it is necessary to resort to the examination of the physical signs. This request is sooner or later generally acceded to, and I do not fail to make it as thorough as possible, for it is far easier to be thorough while you are at it than to get the second opportunity. I first carefully and thoroughly make the digital examination, and accompany it with palpation. By this I gain a knowledge of position, size, tenderness, and presence of tumors, if there be any, and any other circumstances that may attract my attention.

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Having gained all the information I can in this way, I resort to the use of the speculum. The position I put my patient in is either on the back across the bed, with the hips near the edge, or on the left side, in the same relative position to the bed. Having gained all I can by sight, I next resort to sound.

If it be necessary to dilate the os uteri, after varying the examination as may seem best, I introduce the sponge tent, and wait till dilation is complete, and try again. Thus I am able to find out what ails my patient, if I can at all, and then the therapeutical procedure becomes easier and more satisfactory. The treatment can only be spoken of in connection with each peculiar disease. To sum up the points that have been aimed at in this brief paper, they are in the main comprehended in the following recapitulation:

1st. The physician should use every care and spare no labor and pains to find out what ails the patient, *i. e.*, to make a correct diagnosis.

2d. The rational or dynamic signs are not to be relied upon further than to direct to organ or organs affected.

3d. That it is by means of the physical signs, carefully and patiently investigated, that we are to be guided to correct opinions.

4th. That certain appliances named above are indispensable in this practice.

5th. That as to a rule, it were better to decline this practice than to attempt it without understanding.

REPORT ON MATERIA MEDICA.

BY W. M. SHEAN, M. D., OF GARDNER, KANSAS.

If that eminent physician and author, George Earnest Stahl, could truthfully say of the materia medica of his day, that it was a "stable full of offal;" and if Thomas Sydenham, who lived contemporaneously, thought the profession was "pestered with too many eminent remedies," and, when being asked

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by a friend what book with which to begin his medical studies, replied: "Don Quixote," what may I be expected to say in praise of our materia medica, after the almost numberless additions of two hundred years. It appears that then, as now, the great want of the profession was not more remedies, but a more thorough and rational knowledge of the action of those already in our possession, so that the practice of medicine might be freed from empiricism, or at least be more definite and scientific.

Clinical observation and experience ever has been, and probably ever must be, the foundation of practical medicine. But, says Bacon: "If experience is not directed by theory, it is blind." Enlightened experience, then, may be considered the science of medicine. The question then naturally arises: Have the developments of the last two centuries been such as to warrant us in classing medicine with the sciences?

It is, indeed, with feelings of satisfaction, mingled with pride, that we sit in our offices and converse with our friends in the most remote parts of the earth; but let one of these loved ones, either from accident or disease, be obliged to submit to some capital surgical operation, then how much greater the happiness that will be felt when we know that under the influence of the wonderful, triumphant anæsthetic, not a single throe of pain will be felt while the propitious surgeon's knife is performing its benevolent work. In the application of anæsthesia, I believe we have the great and crowning achievement of the nineteenth century. This alone, to say nothing of quinine, and a host of other modern remedies, would seem to be enough to place medicine as high on the pedestal of reform as any other pursuit or science in which man can engage. To thoroughly understand the physiologic and therapeutic action of remedies necessarily involves a perfect knowledge of physiology and pathology. A knowledge of these being a knowledge of the active phenomena of living bodies in health and under the influence of disease, necessarily requires a previous knowledge of anatomy. And as various inorganic substances enter into the composition of the body, and as these substances, under certain conditions, present certain characteristic active phenomena by which they may be recognized;

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a knowledge of anatomy necessarily includes a previous acquaintance with chemistry. Now these sciences are yet, comparatively, in their infancy, consequently our knowledge of them is very imperfect; still, enough has been revealed with regard to the *modus operandi* of medicines to define quite clearly the boundary between empiricism and their scientific administration. This proposition may be well illustrated in tracing the use and action of the modern remedy, bromide of potassium. Dr. W. A. Hammond, of New York, says he has given bromide of potassium to dogs, whose brains had been exposed by trephining, and invariably found that the quantity of blood circulating within the cranium was lessened, and shrinking of the brain produced by this cause. The developments of physiology have shown us that the filaments of the sympathetic nerve accompany everywhere in the body, the blood vessels, enveloping the arterial branches with an abundant plexus, and following them to their remotest ramifications. These sympathetic fibers act by causing a contraction in the organic muscular fibers of the small arteries, and thus regulate the resistance of these vessels and the passage of the blood through them. When the sympathetic nerve is excited the vessels are contracted, the blood passes through them more slowly; when the influence of this nerve is suspended these vessels are dilated, and the circulation through them is increased. It seems, then, that the phenomena witnessed by Dr. Hammond must have been produced, either by the stimulating effects of the medicine on the sympathetic system, or by a sedative effect on the motor filaments derived from the cerebro-spinal system, as there exists an antagonism between these nerves in the regulation of the circulation in the vascular system. There is no doubt but what it was due to the former effect, as the irritation caused by pressure on the cervical sympathetic nerve always causes a contraction of the blood vessels of the brain.

In this theory we have a lens through which we may discover why in the hands of some it acts promptly as an anodyne and hypnotic, while others deny that it possesses any such properties. In all cases of insomnia or cephalalgia, caused by too much blood flowing through the brain—if the above is correct

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—it may be prescribed with certainty of relief. We can also understand in what cases it will not only fail, but might produce serious injury. Thus knowing its action on the vessels of one organ, we may reasonably infer that its action will be the same on any, or all, of the great central organs of the body. That such inference is correct, experience fully corroborates. In the first stages of sthenic cases of pneumonia, I have frequently given from fifteen to thirty grains, in connection with proper eliminants, with the effect to completely arrest the disease.

As facts are what are demanded of all, it may be my duty to state what I have known it fail to do. I have known it given in a severe case of chorea without any effect, unless it was to aggravate the symptoms. The remedy was abandoned and the case readily improved, and in a few weeks recovered under the use of cimicifuga. I have given it in thirty to forty grain doses in cases of neuralgia without any good effect. After which the cases were relieved. either with one or two half-grain doses of morphine, given hypodermically, or ten or fifteen grains of quinine given in the same way. I have never seen a case of epilepsy cured by it, although I have known it given in many cases.

Perhaps if our old friend of the seventeenth century could be informed of the advancements that have been made in regard to the physiologic action of many of our remedies, he might be induced to modify his assertion a little, by acknowledging that chemistry had indeed rid the "stable" of much of its "offal." But we are inclined to the opinion that, if that eminent old gentleman should tarry long to test some of these remedies, he would find them so uncertain in their action that he would be greatly inclined to throw them all overboard. With many of our remedies, to get a pure, reliable article—in the country, at least—is the exception, not the rule. This has led me of late to buy many of my remedies in their crude form, and prepare my own tinctures and syrups; and to be more certain of getting a genuine article, I prefer to use an indigenous remedy, whenever I can do so, and have an agent equally as good; and that we have many such I can testify from experience. Perhaps all have noticed the likeness in the

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description of the medicinal qualities and uses of jalap and podophyllum, as given in our dispensatory. So much resemblance is there in their action, that I believe if there were not another ounce of jalap brought into our State, no one would suffer in consequence, as the May apple would perfectly fill its place. It is sure in its action, readily obtained and easily prepared for use. Take of recently dried root, bruised, one pound, moisten with diluted alcohol, and let it stand a few days; pack in a conical percolator and pour diluted alcohol upon it until sixteen fluid ounces of tincture are obtained. I am satisfied that a trial of this tincture will convince any one that it is far preferable to any preparation of jalap, and is also greatly superior to the podophyllin. Dose, from one to thirty drops, given in simple syrup or syrup of ipecacuanha or rhubarb. In the ordinary routine of practice, as a cathartic I combine it with aromatic syrup of rhubarb:

R. Tinct. podophyllum, ℥j.; syrup rhei. arom. ℥j.; misc. S. A teaspoonful every three or four hours.

From quite an extensive use of this remedy for more than twenty years, I am satisfied that it possesses a much wider range in its therapeutic application than is generally supposed. Not long since, I inquired of a physician what he thought of it as a remedy. He replied that he had never used it much, and did not like to do so, from the fact that the eclectics made so much use of it. This is wrong. We might, with the same ground, refuse to use the bromides, or lay aside rhubarb, or quinine. Nor should we neglect a remedy because it is common, or used in domestic practice. Is it not a fact that we too often pay too little attention to the scientific application of water on this account? More than eighty per cent., by weight, of our bodies, is water. And chemistry teaches us that man begins his existence as a microscopic vesicle of almost pure transparent water. These facts, together with the important part which it plays in the animal economy, renders it one of the most important agents of our Mteria Medica, and its scientific application and use, by the profession generally, will do much toward the suppression of quackery, by elevating the profession in the minds of the people.

The ceanothus americanus, so common on our prairies, is

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very little thought of, and seldom used as a medicine. Dr. Hubbard recommended a strong infusion of the leaves and seed in dysentery, also as a local application in aphthous affections of the mouth and fauces, and sore throat of scarlatina. (See *Boston Med. and Surg. Journal*, Sept. 30, 1835.)

My experience has been mostly with the bark of the root. During the summer of 1863, dysentery was quite prevalent in Johnson county. Most of the cases which came under my observation, were complicated with malarial fever. All who were in Kansas at that time will remember how very difficult it was to obtain medicine of any kind when wanted. This led me to look around to see what the prairies would afford to give relief to the sick. Being from home one day in July on other than professional business, I was called in to see a child some three years old. Its mother said it had the diarrhœa; was taken three or four days ago; had a slight chill the next day after it was taken, followed by considerable fever; gave it a dose of oil at night, which operated before morning; seemed better during the fore part of the day, but was worse in the evening; had ten or twelve discharges from the bowels during the day; thought it had another chill about noon yesterday, and had been worse ever since.

On examination I found I had a case of dysentery, accompanied with remittent fever and chronic splenitis. Not having any medicine with me, I dug some red-root, which I found near by, and filled a tin cup with the bark, covered it with boiling water, let it stand half an hour, and ordered a tablespoonful after each discharge, with a wet compress over the spleen, kept in place by a broad bandage around the bowels. The lady concluded that I intended the compress should be wet with the infusion, and carried out the directions accordinly. On my return the next day I found my little patient so much better, that, instead of recourse to my saddle-bags for more remedies, I ordered the treatment continued. Told the mother to keep on the compress till the "ague cake" disappeared, which, in this case, was ten or twelve days. Since that time I have prescribed it in mauy cases of enlarged spleen, both internally and externally, with good results. During this and the following year, when quinine could not be had,

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when an ante-periodic was indicated, I frequently used Fowler's solution in connection with it. In cases of children, I frequently order the decoction with milk, sweetened with loaf sugar. I now keep on hand a tinct. made from the bark of the root, the same as the podophyllum tinct., which I prefer for the treatment of chronic splenitis. Dose for an adult, ℥j. to ℥jj., three or four times a day, also rub on over the spleen two or three times a day. Enough is said in our dispensatory about this shrub to direct the attention of the profession to it, and if it possesses only the properties there ascribed to it, it is surely a valuable remedy; but I am inclined to think it possesses antiperiodic properties, in some degree, and of this I shall fully satisfy myself by further trial as opportunity offers. It is not unpleasant to take, and may be prescribed with perfect safety. Before you render judgment on it, try it. Try it in your next case of splenitis. Try as directed in our materia medica. It will soon be in bloom, which will be a good time to get the root. Dig enough to make a bottle of the tinct., as above directed, and have a small quantity on hand for decoctions and infusions, and at our future meetings we may expect to hear more about this, as I believe, valuable, though neglected remedy. While you are out with your spade for the red-root, should you come across the asclepias tuberosa—commonly called pleurisy-root or butterfly-wood—don't pass it by as worthless, but dig a few pounds of the root. It will pay. Make a tinct. as above. Any one who is familiar with its description and use, as given in the U. S. Dispensatory, will find no difficulty in prescribing this tinct. intelligently, in individual cases. Be sure and dry a quantity for future use. I use several pounds every year, and would not like to be without it in treating diseases of the respiratory organs.

It was my intention when I commenced this paper, to direct your attention to a few other familiar remedies, but as this article is already longer than, perhaps, is desirable, and as I do not wish to "pester the profession with too many remedies," I will simply say that, as this is an age of improvement, and as all are anxious to keep pace with the times, there may be some danger, in the selection of our remedies, of our being over anxious for something new. Let us not only remember

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the injunction to "prove all things," but let us also "*hold fast that which is good.*" Improvement necessarily involves a change from an old practice or custom to a new. But as a change is not necessarily an improvement, but often the reverse, we should be extremely careful and guard against too readily yielding our old and well tried remedies for those of doubtful virtue. We are two apt, as a people, to be led into extremes. This tendency in our profession cannot fail to be productive of much evil. Many valuable remedies have been entirely abandoned, from the fact that their *fashionable* use—for medicine, like most other things, even to its detriment, bows to the behest of fashion—has led to their misapplication and abuse. Within the recollection of many, a pain could scarcely be felt in any part of the body but venisection would be performed for its relief. So fashionable was the use of the lance that a man could hardly be called intelligent or accomplished, unless he carried a lance in his pocket, and could bleed. Now blood letting is just as good an agent today as it was when Machaon, the son of Esculapius, cured King Damatheus' fair daughter of a severe fever by bleeding her in both arms, and for his fee received her hand and half the King's dominions. But from gross abuse, the practice is nearly abandoned, and direct sedatives substituted, and I have no doubt many lives lost in consequence. But no matter what the result, nervous sedatives are the fashion, and, probably, must and will have their day, till from *their* excessive and careless use, their evil effects on the nervous system in producing irrecoverable prostration, will lead to *their* abandonment. In this practice of extremes, it is true, the truth is often revealed—although in not a very scientific way—and the profession settles down on a rational use of the remedies involved.

With a knowledge of the errors of the past constantly before us, guided by the lights which the correlative sciences have revealed, may we not reasonably hope that ere long, with the combined experience and effort of the profession, the "stable" will be cleared of much of its "offal," so that the selection of remedies may be made with more direct reference to certain well defined pathological conditions.

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REPORT ON CHEMISTRY.

BY T. SINKS, M. D., LEANENWORTH, KANSAS.

The year 1774 was made memorable by two conspicuous events. The first Continental Congress was organized in the American colonies. The tree of liberty was then planted, the branches of which now spread over thirty seven States, and the rich fruit of which we to-day are permitted to enjoy in all its luxurious richness, delicious flavor and blood engendering qualities. In this same year, while "the people of this continent with irresistible energy obeyed one general impulse, as the earth in spring listens to the command of nature, and without the appearance of effort, bursts forth to life in perfect harmony," a Dr. Priestly, of England, undisturbed by the throes of a continent, in the quiet retreat of his laboratory, discovered oxygen, and thereby laid the firm foundation of a scientific structure, which to-day is no less in value and importance to mankind than the glorious Republic we so ardently cherish. Assisted by those ingenious and skillful mechanics, Lavisier, Gay-Lussac, Scheele, Watts, Davy, Cavendish and others, the chemical temple rapidly rose into stately proportions; and as each succeeding day has added some new material, it is difficult to draw the line of demarkation, and determine what is recent and what is ancient. The active labors of these scientists were devoted to the subject of inorganic chemistry, and so careful and accurate were their investigations that subsequent experience has done little to disturb their records or invalidate their conclusions.

Like young religious converts, they were ardent and enthusiastic, and as the whole world of matter and forces invited their scrutiny, each day showered down both blossoms of hope and the ripe fruit of fruition. The imps and gnomes of the old alchemists vanished like night dreams, before the effulgent beams of a purer intelligence; and their magical enchantments their search for the elixir of life and the philosopher's stone, ceased when credulity gave place to inductive research.

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At a later period, the bright genius of Liebig lighted up the organic world in its chemical relations, and displayed to our vision the wondrous power of what we call vital force, in its modifying agency upon chemical reactions. Each organic tissue and fluid was rapidly investigated, its intimate structure determined, and in the wild enthusiasm of the period the possibility of producing organic structures by purely chemical means, was ardently cherished. This struggle to accomplish impossibilities, while it failed in the attainment of the object desired, gave to the science of medicine a voluminous quantity of valuable information. In fact, the indebtedness of our profession to this sister science is chiefly in the department of organic chemistry.

In the rapid rise and progress of chemical science, it was natural and inevitable that many false theories should result from hasty generalizations upon an insufficient number of well ascertained facts. The departments of toxicology and therapeutical chemistry are full of these mere theories, which experience has proved to be either false or insufficient.

The human organism is a poor laboratory in which to conduct chemical processes, and the mysterious disappearance of organic poisons, and even inorganic ones, after they have exerted their baleful influence; the apparent ease with which they elude the most elaborate search, not only creates astonishment in the minds of the intelligent, but also brings discredit upon the investigator in the estimation of the illiterate, who have been led to believe that the analytical chemist can follow any substance through all its intricate mazes, and unearth it from its hidden recesses.

In the department of therapeutical chemistry two notable theories, of comparatively recent date, have succumbed to the crucial test of practical experience. I refer to Churchill's theory of the action of the phosphates, and Polli's theory of the action of the sulphites. As an offset to these, may be mentioned the brilliant induction of Liebrich, in reference to chloral. During the last decade, pharmaceutical chemistry has contributed largely to the convenience of the practitioner of medicine, as also to the comfort of the patient, by reason of the elegance of its preparations, both in their appearance and

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in the success attained in disguising their disagreeable taste.

Medicines, as a rule, are offensive to the taste; and it is the duty of the physician to obviate this, in as far as is compatible with a retention of their efficiency. Just now, the fashion runs in the line of wines and elixirs; and it behooves us to guard against the possibility of providing for our patients an excess of elixir and a deficiency of medicine. While avoiding Scylla, we should carefully guard agaiust Charybdis.

It is gratifying to observe the growing conviction that all dispensers of drugs should be graduates in pharmacy.

Thorough competency on the part of the person to whom is entrusted the preparation of the physician's prescription, is quite as important as competency in the physician himself. However, it is well to remember that the manufacturing pharmacist is liable to be influenced by motives of gain, and to prepare articles which, while pleasing to to the eye and palatable to the taste, are utterly worthless in a medical sense.

The true safeguard consists in qualifying ourselves, so as to be able to detect possible incompatibilities in the various compounds presented for our convenience and use.

PROCEEDINGS OF THE KANSAS STATE MEDICAL SOCIETY.

TOPEKA, KAS., May 19, 1875.

The Kansas Medical Society met in annual session, in Union Hall, Topeka, May 19, 1875, at 2 o'clock P. M. In the absence of the president and both vice-presidents, Dr. G. W. Haldeman, of Paola, was called to the chair.

Dr. Sheldon then delivered the following address of welcome:

Gentlemen of the State Medical Society:

As chairman of the committee of arrangements of the State Medical Society, it is with great pleasure that I welcome you

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among us, at this your annual conclave; and in the name of this society, and on behalf of the citizens of this city, I welcome you, and extend to you the hospitalities of the Capital City.

I trust that this gathering together from all parts of the State, from the best of its medical talent, will be both pleasant and profitable, and that each member of this society will return to his field of labor with a renewed interest in the great work he is engaged upon; and that by our thus commingling together, we may each of us gather some new ideas—that it may open up some new train of thought and reasoning that will make us better practitioners and better men. If we do not, we have failed of the main objects of our coming together, and our labors have been in vain.

May harmony prevail in all our deliberations, and no strife or contention exist among us, except that noble contention, or rather emulation, of who best can work and who can best agree.

I earnestly hope that very little of the time of this society will be occupied by legislation, for I believe that it is the experience of similar societies that a few plain, wholesome laws, whom none can misinterpret, promptly enforced and obeyed, are better than volumes of doubtful construction.

I would earnestly recommend that the Board of Censors be careful in their recommendations for membership, for our success and *usefulness* as a society do not depend so much upon our numerical strength as upon the character and professional standing of its members; and thus, if possible, let us prevent our society from being used as an advertising medium, or as a cloak with which to cover up empiricism and ignorance.

This society was organized and chartered by a special act of the Territorial Legislature, sixteen years ago, and since that time has not made the progress it should have done, or that was expected of it by its founders; yet I am constrained to believe that it has a bright and useful future before it, and that it will take its place by the side of similar societies in other and older States.

Then, my brethren, let us be earnest in the work before us, and endeavor to make our State Medical Society such that we can point to it with pride and satisfaction.

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Again, gentlemen, I extend to you a hearty welcome to this, our annual meeting.

The following members were present during the meeting:

Leavenworth, Drs. J. W. Brock, J. L. Wever; Lawrence, Drs. A. G. Abdelal, R. Morris, C. V. Mottram, V. W. May, J. H. Stuart; Atchison, W. W. Cochrane, G. L. Lewis, J. M. Linley; Paola, Drs. G. W. Haldeman, W. D. Hoover; Fort Scott, Drs. J. S. Redfield, B. F. Helper; Topeka, Drs. D. C. Jones, H. K. Kennedy, S. E. Sheldon, D. W. Stormont, E. Tefft; Ottawa, Dr. J. S. Manning; Manhattan, Dr. H. S. Roberts; Osage City, Dr. W. L. Schenck; Tonganoxie, Dr. J. H. Van Eman.

On motion of Dr. Sheldon, the reading of the minutes of the last meeting was dispensed with.

The president, Dr. J. S. Redfield, of Fort Scott, appeared and took the chair.

Drs. Schenck, Roberts, Sheldon and Stuart were appointed to fill vacancies on the Board of Censors.

The names of the following gentlemen were presented, referred to the Censors, reported upon favorably, and elected to membership, viz: Dr. J. Robinson, of Manhattan; Drs. James Haller and Geo. T. Brown, of Burlingame; Dr. H. O. Hanawalt, of Arvonia; Drs. J. T. B. Gephart and E. L. Burdick, of Valley Falls; Drs. H. K. Tefft, J. E. Harvey, P. I. Mulvane, Wm. B. Gibson, F. M. Stringfield, M. R. Mitchell and H. Breiner, of Topeka; Dr. J. S. Lawrence, of Emporia; Dr. E. W. Seymour, of Junction City; Drs. A. I. Beach and J. W. Noland, of Council Grove; Dr. E. H. LeDuc, of Troy; Dr. J. Leigh, of Highland; and Dr. J. Burns, of Newman.

Two letters to the secretary, from the frontier, were read, on the subject of the bite of the skunk (*Mephitis Americana*) causing hydrophobia. After some discussion, on motion of Dr Haldeman, they were placed on file.

By request, Dr. Brock gave a description of the wound and present condition of Col. D. R. Anthony, of Leavenworth.

Drs. Todd and Porter of Kansas City, being present, were invited to seats, and to participate in the discussions of the society.

A communication to the president, from Dr. Albert Newman,

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of Lawrence, was read, complaining of the great injustice done him in the "incorrect records of the last year's meeting" in styling his paper as a report of a "Case of fracture of the internal malleolus," and asking that the record be amended to give the title "A case of alleged malpractice recently tried in the district court of Douglas county." The secretary stated that the record was amended as requested. On motion of Dr. Schenck, the secretary was instructed to notify Dr. Newman of the correction.

Drs. Jones, Brock, Roberts, Hepler and Schenck were appointed as the committee on nominations.

Drs. Stormont, Stuart and Sheldon were appointed the committee on publication.

The treasurer, Dr. Cochrane, submitted his report, as follows:

TOPEKA, May 20, 1875.

W. W. COCHRANE, Treasurer,

In account with the Kansas Medical Society.

Dr.

To balance, May, 1874	$37 00	
To balance, May, 1875	117 00	$154 00
Cr.		
Paid the Secretary for postage, stationery, etc,	$10 00	
Paid Dr. Sinks for publishing Proceedings	20 00	$30 00
Balance on hand		$124 00

W. W. COCHRANE, *Treasurer.*

It was referred to an auditing committee, consisting of Drs. Mottram, Stuart and Brock. The committee subsequently submitted a report that the account was correct, which report, on motion of Dr. Jones, was adopted.

Dr. Stuart read the report on Infantile Diseases. After discussion, it was referred to the committee on publication.

Dr. S. E. Sheldon offered the following resolution, which was adopted:

Resolved, That this society will pay their respects to the Hon. Henry Wilson, the Vice President of the United States, at his rooms in this city, at 10 o'clock P. M., and that the secretary inform him of this contemplated visit.

On motion, the society adjourned, to meet at 7:30 o'clock.

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EVENING SESSION.

The society met as per adjournment; the president, Dr. Redfield, in the chair.

Dr. Lewis presented a paper on "The effects of compressed air on the human system," which was read by the secretary. On motion of Dr. Brock, it was referred to the committee on publication.

Dr. Manning, of the committee on Materia Medica, read a report on Chloral Hydrate. On motion of Dr. Haldeman, it was referred to the committee on publication.

Dr. Schenck read his report on the Use and Abuse of Alcoholic Liquors. On motion of Dr. Brock, it was referred to the committee on publication.

These papers all gave rise to discussion by the members generally.

On motion, the society adjourned until 8 o'clock to-morrow morning.

MORNING SESSION.

TOPEKA, KAS., May 20.

The society met according to adjournment; the president, Dr. Redfield, in the chair.

Dr. Mottram reported a case of encephaloid cancer. On motion, it was referred to the committee on publication.

Dr. Todd, of Kansas City, reported a case of atresia uteri. On motion of Dr. Cochrane, a vote of thanks was tendered Dr. Todd for his report, and a copy requested for publication in the Transactions.

Dr. Stuart reported a case of rupture of the perineum. On motion of Dr. Morris, it was referred to the committee on publication.

Dr. Haldeman read a paper on the Indications for the Use of the Forceps. On motion of Dr. Schenck, it was referred to the committee on publication.

Dr. Brock submitted two pathological specimens of Bright's disease, with a history of the cases.

Dr. Hoover exhibited some specimens of biliary calculi.

Dr. Brock submitted the report from the committee on nomi-

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nations, which, after some amendments, was, on motion of Dr. Cochrane, adopted as follows, viz.:

OFFICERS FOR THE ENSUING YEAR.

President.—Dr. Tiffin Sinks, of Leavenworth.

First Vice-President.—Dr. H. S. Roberts, of Manhattan.

Second Vice-President.—Dr. W. L. Schenck, of Osage City.

Secretary.—Dr. D. W. Stormont, of Topeka.

Assistant Secretary.—Dr. M. S. Thomas, of Leavenworth.

Treasurer.—Dr. W. W. Cochrane, of Atchison.

Board of Censors.—Drs. J. W. Brock, J. M. Linley, C. V. Mottram, G. R. Baldwin and E. W. Seymour.

REGULAR COMMITTEES.

Practical Medicine.—Drs. J. H. Stuart, S. E. Sheldon and F. Speck.

Surgery.—Drs. J. W. Brock, O. C. Bender and J. H. Van Eman.

Obstetrics.—Drs. G. W. Haldeman, J. Robinson and W. W. Cochrane.

Materia Medica.—Drs. J. Leigh, J. T. B. Gephart and H. O. Hanawalt.

SPECIAL COMMITTEES.

Recent Advances in Physiology.—Dr. R. Morris.

Recent Advances in Chemistry.—Dr. A. Newman.

Recent Advances in Hygiene.—Dr. E. W. Seymour.

Infantile Diseases.—Dr. D. W. Thomas.

Indigenous Remedies.—Dr. V. W. May.

Concentrated Remedies.—Dr. C. C. Furly.

Venereal Diseases.—Dr. J. L. Wever.

Uterine Hemorrhage.—Dr. D. C. Jones.

Nervous Diseases.—S. F. Neely.

Use and Abuse of Alcohol.—Dr. M. R Mitchell.

Gynecology.—Dr. W. H. Warner.

Hydrophobia.—Dr. H. S. Roberts.

Poisoned Wounds.—Dr. J. S. Redfield.

Epilepsy.—Dr. J. S. Lawrence.

Delegates to the American Medical Association.—Drs. D. W. Stormont, E. W. Seymour, T. Sinks, R. Morris, J. H. Stuart,

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J. S. Redfield, B. F. Hepler, S. F. Neely, James Haller and H. K. Kennedy.

We recommend that each delegate be requested to notify the secretary whether he will attend the next meeting of the American Medical Association, and that the secretary be authorized to fill any vacancies which may occur in the delegation.

Time and place of meeting for 1876, second Wednesday in May, in Leavenworth.

Your committee would respectfully suggest that in each alternate year hereafter the meetings of the society be held in Topeka.

This suggestion, after a lengthy discussion, was adopted.

Dr. Beach offered the following resolution, which was adopted, viz.:

WHEREAS, It was from the combined application of the energy and skill of the medical officers of the army and navy of the United States, during the war of the Rebellion, that the most complete and valuable records of military surgery, pathological and sanitary reports have been compiled; and

WHEREAS, The requirements of the medical officers of said army were far in advance of the compensation allowed, and it is but just that they should be further compensated by being furnished with a copy of these valuable records, the result of their own untiring efforts towards the advancement of science; therefore, be it

Resolved, That we, the members of the Kansas Medical Society recommend the passage of an act of Congress, granting to each medical officer serving in said army, or his family, if dead, one complete copy of said reports.

Dr. Beach moved that a copy of the Constitution and By-Laws of this society be published with the transactions of this meeting. Carried.

A communication was received from Dr. Furley, being the report of a case of resection of the humerus, which was referred to the committee on publication.

Dr. Redfield, the president, then delivered his valedictory address, which was referred to the committee on publication.

On motion of Dr. Roberts, the thanks of the society were tendered to the officers of the Kansas Pacific Railway, and the Missouri, Kansas and Texas Railroad, and the Atchison, To-

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peka and Santa Fe Railroad, and the Kansas Midland Railroad. for reduced rates of fare to the members attending this meeting.

Drs. D. W. Thomas, A. C. Van Duyn, J. W. Brock, J. L. Wever and S. F. Neely were appointed a committee of arrangements for the next meeting, with instructions to secure, if possible, a reduction of railroad and hotel fare to the members.

The name of Dr. N. C. Wells was proposed for membership.

On motion of Dr. Schenck, it was referred to the Board of Censors.

On motion of Dr. Roberts, the society adjourned, to meet in Leavenworth the second Wednesday in May, 1876.

D. W. STORMONT, *Secretary.*

THE EFFECTS OF COMPRESSED AIR UPON THE HUMAN SYSTEM,

As evinced in the sinking of bridge piers during the construction of the Atchison bridge over the Missouri river.

BY G. L. LEWIS, M. D.

Owing to the limited facilities afforded for the observation of the effects of compressed air upon the human system, and the meager results that have necessarily attended investigations complicated with every imaginable difficulty, we find that this branch of science is deeply inlaid and enveloped in mystery, and that the light of experience and observation has not as yet thrown its rays so strongly into this arcana as to dissipate the gloom of darkness, and reveal the truths of nature locked within its bowels.

Perhaps there is naught man has so much strived to resist as the command that "in the sweat of thy face shalt thou eat bread till thou return unto the ground;" and yet for the good of man, labor has become an actual, sustaining principle of his physical nature, without which life is a weariness; the

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human race degenerates in body until the frail temple encasing the restless spirit early learns it is of a mouldering nature, and utterly fails to achieve the high design contemplated in its creation.

The inhabitants of the world are workers, and the social fabrics that constitute our systems of government are elevated and erected for our protection and comfort, and are the result of almost superhuman intelligence and arduous labor—mental and physical labor, that demands for its sacrifice, frequently, the lives of its victims.

The individual labor of each particular person, as far as the particular results are concerned, may be feeble as the spider's thread, and as easily brushed away; but a skein of spider threads, twisted into a strand, would make a rope of sufficient strength to deprive the strongest man of life.

A steamer, crossing the broad ocean, heavily laden with provisions, would be but a mockery to satisfy the cravings of a starving nation; but a fleet of vessels, hurrying on the wings of the wind, with sails distended, and heaped with every article of nutriment, would allay a nation's pangs, and rescue from suffering its fevered hundreds.

This is my reason for writing this paper, feeble though it may be, erroneous in some particulars as it probably is; yet, if there is one ray of light that shines from its pages, and helps to illuminate the darkness of this branch of science, I will feel amply repaid. And others, that may become interested in this subject, will contribute their observations and reflections, until, from a combination of individual labor, great results may be achieved, and a perfection of knowledge established.

Before narrating the history of the experiments of compressed air, I desire to express my thanks to Major O. B. Gunn, chief engineer; Major George C. Thorne, superintendent of the entire works, and Captain Pat. O'Malley, superintendent of the Pneumatic Works, for their kind and obliging assistance in rendering every facility in their power in preventing and allaying sickness among the pressure men, and tendering me every convenience as the occasion demanded. And the massive structure which they are erecting to span the muddy

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waters of the Missouri, and link together the iron roads of the East and West, North and South, will stand as a perpetual monument to their genius and ability, a triumphant achievement of scientific intelligence over inanimate nature.

The first experiment with compressed air of which we have any account, was the success attending the introduction of the diving-bell, in the beginning of the sixteenth century. At that time, we are informed, two Greeks, in the presence of the Emperor Charles V. and several thousand spectators, let themselves down under water, at Toledo, Spain, in a large inverted kettle, and arose again, without being wet.

In 1665, a kind of bell was employed at the Hebrides, for the purpose of recovering the treasure lost in several ships belonging to the Invincible Armada. From that time to the present, various improvements have been made in the diving-bell, by means of which condensed air is constantly forced into the chamber in such quantities that the water is excluded and totally expelled from the diving-bell, and it is now extensively used for clearing out harbors, laying the foundation for submarine walls, and recovering articles lost by shipwreck. But we have no detailed account of the actual physical effects of this compressed air upon the occupant, of its deleterious effects upon his health, but simply a report mentioning the shortness of time that life could be supported and sustained in one.

We have also an account of the weight of air, and of an experiment where the Duke of Tuscany, having dug a deep well, tried to exhaust the water from it with an ordinary pump, but found, to his great surprise, that the water would not rise more than thirty-two feet, and he referred the matter to Galileo, who was also unable to explain it, and referred it to his friend and pupil Torricelli, who, supposing the cause of the failure to be the atmospheric pressure, experimented with a column of mercury, and found his supposition true, that it was the weight of the air which held the warter down; and from this experiment resulted the invention of the barometer.

Pascal succeeded him with a variety of experiments severally useful in their way; and so the thread of connection was woven from the middle of the sixteenth century down to the

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middle of the nineteenth, when a French engineer, M. Trigger, succeeded in utilizing compressed air in the expulsion of water from huge iron tubes sunk in the Loire to arrive at and mine the coal beds beneath that river. He also gives an account of the sickness produced by working in the compressed air, and the method of treatment. (See Andrew H. Smith's, M. D., report to the board of directors of the New York Bridge Company, pp. 19, 20, which contains full particulars.)

These histories are all interesting as showing the various experiments with compressed air. But the most valuable physiological and pathological treatise of the effects of compressed air was written, one by Dr. A. Jaminet, surgeon of the Illinois and St. Louis Bridge Company, and published in 1871, and one by Dr. Andrew H. Smith, surgeon of the New York Bridge Company, and published in 1873.

This being the status of affairs, and I, having been appointed Surgeon to the American Bridge Company, now building a structure over the Missouri river at Atchison, where I could view the effects of this compressed air in all its bearings, determined to jot down from time to time the results of personal observations, and give them to the members of my profession.

In order to fully understand the working of the compressed air, a short description of the caisson, or compressed-air chamber, is necessary. The caisson is constructed of solid timber, with working-chambers in the lower half, corresponding in dimensions to those of the pier-base. Above the working-chambers is nine feet thickness of solid timber, consisting of layers of large square timber, laid at right angles to each other, and every piece bolted through its whole length to the underlying timber. The weight of the ordinary caisson is four hundred and fifty tons. The caisson for the pivot pier was forty-six feet square, and eighteen feet high. Down through this timber to the working-chambers a huge iron tube runs, called the air-shaft, affording ingress and egress to the caisson workmen. At the top of this air-shaft is placed the air-lock, of cylindrical shape, four feet in diameter, and about seven feet high, with two iron lids, one at the top and one at the bottom of the air-lock. Into this air-lock the workmen enter, and the outer lid is shut, excluding the air, and the

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compressed air is let into the air-lock until the pressure in the air-lock equals that of the caisson, when the lower lid is opened and the men descend into the caisson through the air-shaft and into the working-chambers. In the air-lock, where the air is equalized, is the only place where any *immediate* disagreeable effects are experienced—during the transit through which, and the time occupied, varying from three to five minutes, the force of the compressed air, rushing in and equalizing itself through the system, produces pain in the head and muscles, and ringing in the ears. This may be relieved considerably by keeping the apertures of the nose tightly closed between the fingers, and forcing air into the air-tubes, which counterbalances the outside pressure upon the ear-drum. Adjoining the caisson, and immediately behind the air-pumps, is a room built upon a flat-boat, with bunks and benches, where the temperature is kept sufficiently comfortable and even. In this room hot coffee is served to the men before entering and after leaving the caisson, and where those taken sick after leaving the caisson are attended.

Before proceeeing to mention the caisson disease, I wish to speak of a few physiological peculiarities incident to working in this compressed air. One of these peculiarities is in the sense of hearing, which becomes less acute. This is owing to the fact that the density of the air, although it may convey a louder sound to the ear, yet, at the same time and from the same cause, the unusual pressure upon the auditory apparatus opposes the mechanical obstruction to the freedom of vibration, which is essential to perfect hearing, and feebler impressions are conveyed to the auditory nerve, and hence the sound appears to be fainter and far away.

A lighted wax candle can be thrown from one end of the working-chamber to the other, without being put out.

A difficulty, also, is experienced in speaking, as the efforts of the expiratory muscles are not sufficient to increase the density of the air in the cavity of the mouth, and renders protracted conversation very fatiguing.

The effect upon respiration is also noticeable in compressed air, the breathing being more frequent, the respirations being deepened and increased from three to four per minute, owing

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to the increased absorption of oxygen, as Dr. Jaminet supposes; but Dr. Smith argues that the quantity of carbonic acid held in solution by the blood, as by the water, is in proportion to the pressure to which the gas is subjected; and hence with the pressure existing in the caisson, the elimination of carbonic acid from the blood would not be as perfect as under normal circumstances, unless the air in the lungs were more frequently changed. This, I think, is the true explanation, and I am inclined to coincide with the opinion of Dr. Smith, as experiments show, to controvert Dr. Jaminet's theory, that simply increasing the supply of oxygen diminishes the frequency of respiration, instead of increasing it.

The effect upon the circulation produces, at first, an increased pulsation, but after remaining in the caisson, the tendency is to decrease it, being caused by the mechanical obstruction of the weight of air upon the tissues enveloping the veins and arteries, and preventing their proper expansion to accomodate the fullness of the flowing blood.

At first, working in the caisson increases the appetite, but after a time loss of appetite ensues, the tongue becomes coated heavily, the bowels constipated pains in the head, and all of the symptoms of severe bilious attack, and then the caisson disease, with violent pains, pallid features, jaundiced eyes, and tortures that a Dante never imagined.

Having mentioned these peculiarities, I shall now proceed to note the pathological effect of compressed air.

The effect upon the ear is very common, and, as Dr. Smith says, mentioned by nearly every writer. Intense pains are caused in the ears, the eustachian tubes are obstructed, thereby preventing an equalization of the air, and causing an interruption of the outside air with the cavity of the middle ear. This failure to equalize the pressure upon both sides of the ear-drum causes extreme pain, and sometimes entails severe results; for instance, rupture of the ear-drum is mentioned in one of the reports. Severe pains are also felt in the frontal or maxillary sinuses, which are caused by the closing of the passage leading to the nasal cavity. The pressure upon these parts frequently produces bloody discharges from the nose and throat, and clotted blood in the ears.

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Having mentioned these preliminary effects, I shall now proceed to a description of the caisson disease, produced by laboring in condensed atmospheric pressure.

This disease is produced only by compressed air, and never shown during the occupancy of an air-chamber filled with compressed air, the disease always appearing after the removal of the pressure; its characteristics being severe pains in the joints of the upper and lower extremities, sometimes in one or both, and frequently running upward into the pit of the stomach and walls of the chest. Vomiting and epigastric pains frequently accompany it. In some cases complete paralysis ensues, and in others, paraplegia. During the paralysis, although the power of locomotion may be suspended, and sensation entirely gone, yet the exception remains, and the violent pains are as keenly felt in the paralyzed part as ever, and continue during the entire paralysis. The pains will last violently for about twelve hours, and are associated with headache and vertigo. Smith and Jaminet report that these symptoms are connected in fatal cases with congestion of the brain and spinal cord, often resulting in serous or sanguineous effusion, and with congestion of most of the abdominal viscera. But out of some fifty cases I have tretad, no fatal cases occurred, although some desperate ones; hence I am unable to speak from my own experience.

The usual symptoms are first, neuralgic pains, which are the chief characteristics of the disease. They seize upon the knee joints or joints in the arms and shoulder, and the suffering produced equals that of the rack of the Spanish Inquisition. The patient says that the "pain feels as if it were in the marrow of the bones, and that an iron hook was twisting the ligaments and pulling them out one by one." The strongest men in the pressure gang are frequently so overcome that they give up all restraint, and shriek like women in labor. Some of the men, when taken with a slight pain, and before it increases to severity, fill themselves with whisky, to render them unconscious of pain—the pains in slighter cases lasting from six to twelve hours. They frequently begin, slight at first, but rapidly develop in severity, until they subdue the most stubborn natures. At other times, the attack is sudden, and

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the suffering terrible to witness. These pains are paroxysmal, reoccurring after short intervals, but frequently lasting for hours without intermission. Beginning in the knees, it will shift to the arms, but in a majority of cases remains where it first locates. In some cases swelling and heat of the affected part is followed by discoloration, and spots appear under the skin, seeming as if resulting from a violent bruise.

A change in pulsation depends upon the moment of attack. If taken immediately after leaving the caisson, the pulse is generally high, sometimes as much as 130 beats per minute. Those taken after having left the caisson, for a half-hour or more, had a very slow and feeble pulse, running in some cases as low as forty, the character of the pulse indexing the exhausted condition of the system. The skin is coated with a heavy, damp perspiration, produced by non-evaporation, owing to the density of the air, and dampness of the caisson.

As the symptoms are very uniform, and similar, I shall only recite a few cases by way of illustration, and to show the plan of treatment. These cases occurred when the caisson had reached the bed-rock of the Missouri river, and was eighty-five feet below the upper surface of the water, with a pressure in the caisson of forty-five pounds to the square inch.

The case of William Johnson, aged thirty-five years, of average height, weight 160 pounds: After working in the caisson until it was sunk to bed-rock, he was taken sick shortly after leaving the caisson, with violent epigastric pains; pulse 130; face extremely pallid; bowels constipated; very bilious. Administered cathartics and hypodermic injections of morphine, after which he fell asleep, and awoke free from pain, but in a prostrated condition, with muscles and joints sore, and slight paraplegia, which lasted for three or four days, after which he was enabled to resume work, and has continued working up to this time. In slighter cases I have administered drachm doses of the fluid extract of ergot, where the pain was not so severe, for three or four hours, as the case required, and have found that it acts nearly as well as opium, although it is not to be fully depended on. I have seen one or two drachm doses relieve pain in an hour, and in many cases, where the workmen have left the caisson very weak and prostrated,

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unable to handle their limbs—symptoms ushering in paraplegia—I have administered ergot in drachm doses every half-hour, and the disease would be entirely warded off, and the patient recover without an attack.

In the case of Bryan Shehe, aged thirty years (a strong, healthy constitution), he was first seized in the knees with violent pains, when the pressure was twenty-eight pounds to the square inch. My attention was called to the case about the time he came out of the caisson. Found him suffering severely from neuralgic pains, was very bilious, with coated tongue and constipated bowels, which is the invariable case in all of the caisson diseases. Allayed the pain with the use of anodynes, after which I gave him cathartics freely to operate upon his liver, and in two days he resumed work, feeling as well as ever. About one week afterwards, when the pressure had been increased to about thirty-five pounds, he was again attacked, but more severely. I saw him about three hours after he left the air lock, suffering excruciating pains in the shoulders and elbows. Treatment similar as before, with the addition of fluid extract of ergot, one drachm every hour; and in twelve hours was free from pain. Bowels in a constipated condition as before. Was unable to resume work for five days, when he again entered the caisson, and worked about one-half of the regular time (regular time one hour and thirty minutes), and feeling badly, ceased word and returned. Immediately after returning from the caisson to the normal atmosphere, was taken with pains in the shoulders and sides; treatment as before until pains ceased, when congestion of the lungs supervened, from which he suffered for about one week, when he grew convalescent, and is now entirely well. In some four or five cases where the patient has resumed work, congestion of the lungs has supervened, but none as yet attended with fatal results.

I have had many more cases very similar in symptoms and severity, and have treated some fifty cases, many of them with the air pressure as high as forty-six pounds, and none of them have terminated fatally yet. With a few more cases of paralysis I am done, having already too long abused your leniency.

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On the 8th day of April, George W. McIntyre, aged about twenty-seven years, a new pressure man, having never worked before, went to work with pressure at thirty-eight pounds; worked on a shift of about two hours; was in a gang that left the air-lock early in the night. A few moments after leaving the caisson, whilst in the barge hospital, he was taken with convulsions, paralysis of both limbs immediately ensuing. I was sent for about midnight, and found him suffering with severe pain and paralysis, and unable to be moved, and remained in the hospital; bladder also paralyzed, and urine drawn of with catheter; acid reaction; no tenderness over the spine. Administered opiates, and left him until the next morning. The opiates quieted his pain. About five o'clock the next morning I was sent for again, the messenger saying he was suffering from a repeated attack of convulsions, and on arriving at the hospital found him very much prostrated, but rational. Pulse about forty, with complete paralysis of both limbs. Placed him upon stimulants, and again administered the usual quantity of ergot every two hours. In the following afternoon he was able to be removed to his boarding house, after which administered ergot at intervals of four hours for twenty-four hours, and gave cathartics, as he was suffering, like all others under this disease, from constipation of the bowels, and the usual symptoms accompanying bilious difficulties. After which convalescence established itself, and in two weeks after the attack he was enabled to resume light work outside of the caisson, but never returned to labor in the compressed air.

APRIL 30.—John B. Kemp, aged about thirty-five years; an American, of medium build; has worked in the pressure in the first, second and third piers; was working in the third pier, and while the pressure was forty-five pounds to the square inch; a half-hour after leaving the caisson went home, and when entering the gate in front of his house, was suddenly stricken down with complete paralysis of the lower part of the body, bowels, bladder and legs, with also the right arm. Used ergot freely, without any apparent success, and exhausted all other ordinary remedies for paraplegia in vain. It was five days before I succeeded in causing operation of the bowels; urine drawn

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off with catheter every day up to the present time; dropsical effusions of the limbs; recovered the use of his arm in about one week; motion and sensation gone in the lower limbs. He can exert no control over his bowels or bladder; tongue dry and coated, with more or less fever continually; very little appetite. The last few days is beginning to suffer very severe pains in the paralyzed parts. At present writing, May 18th, is apparently improving.

THE CAUSE OF THE DISEASE.

Under the air pressure, the skin and superficial structures will be anemic, as shown by the pallid features. The central portions of the limbs and the interior organs of the body will be congested. The solid viscera will be especially engorged, on account of both situation and structure. The brain and spinal cord, and the interior of the shaft of the long bones, will be highly congested. These changes are not perfected until a considerable time has been passed in the compressed air. The circulation up to this time goes on with vigor, the change being in the relative caliber of the vessels, not in their tension. The counter pressure becomes uniform throughout the whole vascular system; but this counter pressure supersedes the natural muscular resistance or tone of the vessels, which have become mere passive tubes, and the blood is not distributed in accordance with the physiological demands of the different parts, but in obedience to overpowering physical force. The changes which have taken place are not the cause of the morbid phenomena which constitute the disease, or else the attack would occur while in the compressed air, instead of after leaving it. Hence, it is evident that the removal of the pressure is the immediate cause of the seizure, and as the vessels cannot resume their normal condition, they are in a state of relaxation, not only in the congested but also in the anemic parts; in the former because of over-distention, in the latter because the muscular coat cannot at once recover from its inaction. Hence, the circulation is languid, and the congested parts will not readily empty themselves of the excess of blood which they contain. Especially will this be the case in the brain and spinal cord, where the conditions are most

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favorable for the production of congestion. The capillaries being clogged with effete blood, the nutrition of the parts must suffer, and disturbance of the functions will result. When the spinal cord is the seat of this condition, pain in the parts deriving their nerves from that section of the cord may be the result, or paralysis more or less complete follow. (See Smith's Report, p. 45.) Dr. Smith, having the same idea and theory of the disease, says: "I was led to believe that benefit would be derived from the use of an agent that would induce contraction of the capillaries, and thus correct the want of tone, which I considered to lie at the foundation of the difficulty." For this purpose he used ergot, reasoning that it would be useful, first, by contracting the vessels of the brain and spinal cord, and relieving their congested state, and, second, by restoring tone to the capillary vessels, and thus imparting vigor to the circulation. (Idem, p. 53.) For these reasons I administered ergot with very great success.

With these remarks, gentlemen, I will close this article, apologizing for its length, having intended to condense and shorten it, but after seeking various paragraphs to exclude, I found that the logical connection would be interrupted, and hence have permitted it to remain as written, merely adding that the thought will frequently obtrude itself upon the mind of the medical practitioner that, after his greatest efforts to stay the ravages of disease, after having poured ointment into the wounds of the unfortunate one, after having successfully combated with death for the prolongation of life and the vanquishing of pain, after having spent hours at the bedside of the sick and curbed the erratic wanderings of a mind diseased, in the end his labor is all in vain; for history teaches that all human greatness, with the glory of the past and the chronicles of her wonderful events, and the monuments of time that now stand to mark the mutations and the revolutions of bygone ages, are but the gravestones of a dead and buried past, where the physician and his patient, the monarch and his slave, the sage and the fool, sleep together in one common sepulchre, and all efforts are vain, for since the edict promulgated in the garden of Eden, that "dust thou art and unto dust shalt thou return," eternity has ever quarreled with time, and

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decay, the physician's deadliest enemy, the monarch of time, the only antagonist of life, will reign supreme until the day we are assured shall come, when time shall be resorbed by eternity, earth regarnished, and from the ruins of a world baptized by fire, there will arise a living, undying structure, a new created member in the great family of worlds, where decay shall be forever banished from the universe of God, and around the throne of the Great Physician all continue in perpetual, youthful bloom.

INFANTILE DISEASES.

BY J. H. STUART, M. D.

In setting about the preparation of a paper on this subject, I am forcibly reminded of the remark of a professor to one of his pupils in regard to a composition he (the pupil) proposed to write. The professor asked him on what subject he proposed to write. He replied, "On the War of the Roses." "My dear sir," said the professor, walking to the shelves of his library and taking down a number of volumes on this subject, "do you think you can say anything that has not been said in this work."

Indeed, it can hardly be expected of one who sees only the ordinary number of little patients that commonly falls to the general practitioner to add much, if anything, new on the subject to what is already said in books and periodicals. But the apology for a report of this kind is doubtless that this learned body wishes to make some one of its members responsible for introducing the subject, and thereby giving it an opportunity to discuss it in its own way. That service I shall now attempt by speaking in a general way on a few of the many points that present themselves out of this very comprehensive subject.

In the first place, I do not see the propriety of designating every ailment of which young children are susceptible under the head of infantile diseases. It is the custom now to so reckon both those that are peculiar to adults and accidental

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to childhood and those in no way more peculiar to children than to adults, except that the opportunities to be affected by them are so abundant, and the susceptibility of children so great, that but few can escape till adult life. Take from the catalogue of diseases commonly called infantile the classes alluded to above (as typhus, typhoid, and malarial fevers, measles, scarlet fever, small-pox, syphilitic and gonorrheal affections, tuberculosis, and certain of the skin diseases, besides others of which I will not attempt a complete list), and the number left belonging properly and exclusively to infantile life will be exceedingly small outside of the organic affections. There would be left, perhaps, croup in all its varieties, whooping cough, a few of varieties of catarrh, certain ailments of the prima via, some of the neurosis, and a limited number of skin diseases. There may be a few other forms not included under these heads, but the list cannot be carried very far. I believe this to be a far more important consideration than at first it may appear to be, because the present custom not only tends to make certain diseases appear multiform, but it renders the subject of infantile diseases proper far more complex and volumnious than it ought to be.

There is, perhaps, in medicine a very clearly established opinion that each disease has a distinctive character of its own, that adheres to it under all the modifying circumstances that may attend its occurence, however great. This idea of essential sameness should never be lost sight of, though the therapeutic needs may vary greatly.

What may be denominated infantile therapeutics is perhaps of all matters connected with this subject the most important. The susceptibility of young children to therapeutic measures is, I have often thought, greater than is generally conceded, and the tolerance less. I am not without a fear that the influences have been determined against the child many a time by not remembering this. From whence can there come such an appeal of utter helplessness as from the human offspring?

The powerful man, who can undergo with impunity the greatest extremes of temperature, can endure hunger and thirst and disease, might have been extinguished by the burden of a finger, or a breath of poison. There is no greater evolution

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in mind than physical powers. The impressibility of infancy and childhood, to both extrinsic and intrinsic influences, is the most important consideration in infantile therapeutics and hygiene.

The diagnosis of diseases of children, taken all in all, is not more difficult than of diseases of adults, if observation and study have been added to experience.

The function of teacher, which the term Doctor implies, is in no case called for more emphatically than in the case of the management of young children. Many needed reforms in their dress, feeding and general care must come from no uncertain warnings from the doctors. Nothing but this will overcome both the ignorance and the pride of nurses and mothers.

I will rehearse a few rules which I believe to be very salutary in the management of babes.

In regard to the cord, while I do not tie it immediately after birth, neither do I deem it safe to allow the child to pass from my immediate observation with it untied. If the pulsations are strong, I allow them to continue in the undivided cord till respiration is well established, and then I sever it, holding with my fingers the stump, or perhaps put about it a soft piece of cotton cloth or a bit of lint, and hand the child to a nurse, with directions to watch closely for hemorrhage, and if it be slight, I allow the child washed, and I tie the cord when the stump is dressed for applying the bandage.

In regard to the first washing, I think the best plan is to first rub the child well with the contents of an egg, and then wash with plain warm soft water; or perhaps it is as well to first oil or grease the child, and then wash with bran water, without any soap.

The bath should form a part of the daily toilet for the first ten or twelve months—during the first seven of which it should be a little above blood heat, the child not being allowed to remain above six or seven minutes. After this period, the temperature may be gradually reduced, the child being kept in for a less time. Above one year old, two or three baths a week will be sufficient, care being taken in regard to exposure at the time, and to suspend them as soon as any signs of catarrh

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manifest themselves. Medicated baths, though less in vogue now than formerly, may, under certain circumstances, be of great benefit.

In this connection, I desire to allude to inunction as a therapeutic measure. "The use of oils and fats," says Dr. Fisher, in the Medical Report, of New York, "in medicine, either alone or in combination with other remedial agents, is of very ancient origin. The Greek and Roman physicians employed inunction as a means of treating disease, and it ultimately became a hygienic necessity among the people in the regime of the gymnasium and gladitorial contests, and as an important part of the bath." . . . "The neglect that has fallen upon the old method of inunction is surprising, in view of its great virtues as a means of treatment in a variety of disease." The best form of oil to be used in this way is olive oil, because it decomposes on the skin less rapidly than the animal fats, though I frequently use the well-known German article, namely, goose grease.

It is best, in the first place, to preceed the inunction by a warm bath; then wrap the patient in a loose, long wrapper (flannel is the best), and having the oil warmed, apply it over the whole body and limbs with the bare hand. A general sense of comfort seems to follow, and a diminution of nervous irritability to a greater or less degree, when present. Cases of remarkable advantages from inunction are related in cholera infantum, pulmonary diseases, fevers, tuberculous affections, skin diseases, etc. I would commend a further acquaintance with this subject.

There is no doubt that to improper clothing and feeding may be attributed a very large per cent. of the disorders and deaths among infants. So frail is their tenure on life, so feeble is the assertion in them of vital persistence, that very slight disturbances indeed are altogether sufficient to overcome them. I believe we do not yet appreciate the dangers that beset young children from the vicissitudes of temperature to which they are constantly exposed, without due care in regard to a proper adaptation of clothing. The change of temperature sometimes experienced by the newly-born babe is indeed remarkable. From a bath of not less than 98 or 99°, and a state, as it were,

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of passive existence, it is ushered into an atmosphere that may place the mercury anywhere within a range of 130°, or even more degrees, with a respiratory apparatus hitherto unused, that must at once begin the process of aeration. This, of course, is a condition of existence, and to compensate therefor a most wonderful power of adaptation is conferred. But the risks attendant thereupon are none the less extreme. Men when the vital functions are all well established, and when they are well settled into easy living, may expose themselves to the extremes of heat and cold; but no one will claim that they may do it with impunity, notwithstanding their numerous aids and experienced judgment. There is no doubt that the perils of young children from this cause are far greater than at any subsequent period; and what is more, we do not always provide for them as we do for ourselves, even when we are better able to endure.

An eminent teacher of physiology used to illustrate the complementary relations of the skin and the mucous membranes by saying that they were so closely allied in nature and influence that if an individual could be turned inside out the membranes were convertible. All have observed how an eruption will frequently attend the presence in the alimentary canal of some irritating or indigestible food. Then there are the various forms of catarrh affecting both the respiratory and alimentary tracts—clearly the result of the vicissitudes of the weather on the skin.

What I shall say in regard to feeding infants will be in the main condensed from the rules for the management of infants, issued by the staff of the Birmingham hospital for sick children. Never let a wet napkin remain on for a minute. Give them plenty of fresh air. Nothing is equal, for food, to the mother's milk, and if there is plenty of this it should have nothing else till it is *seven months old.* Next to this is a proper wet nurse, and then comes cow's milk and the bottle. This of course needs warmth, more or less water, according to the age of the child, and sugar. A very large number of children that are fed by hand die in childhood, and this mortality is for the most part due to the practice of beginning too soon with gruel, corn flour, bread, arrow-root, etc. These

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are not proper nourishment for children under seven months old, and should not be given to them. The child should be fed regularly, and not every time it cries. If, after the child is seven months old, it is strong and healthy, and has cut a few teeth, it may have its milk twice a day, thickened with a little well-baked bread, Chapman's entire wheat flour, Ridge's patent food, etc. All starchy food must be in small quantities and well cooked. The child should never nurse longer than from ten to twelve months. Milk should still be the chief food even at two years old, and older. Stimulants, cheese, new bread, fruit, pastry, soothing medicines, sleeping draughts, cordials, teething powders, etc., should never be given.

The following statistics in regard to the number of deaths under the ages of one and five years in proportion to the whole number of deaths for a given time, may be of interest in this connection:

The per cent. of the whole number of deaths in the United States for the census year 1870, which occurred under one year, is .22+; under five years, .41+. In the several States and Territories the per cent. varied slightly from this, both above and below. For a period of between four and five years since 1870, in Lawrence, Kansas, the per cent. of deaths under one year is 36 per cent. of the whole number of deaths occurring. "In a large part of England the bills of mortality show that 50 per cent. of the total mortality occurs in children under five years of age, one-half of the deaths being among infants, and largely preventable." (Medical Record, May, 1875.)

I will allude to one other subject, which shall conclude this paper, viz., Trismus Nascentium, or Trismus Neonatorum, or Tetanus of Infancy. It occurs within a few days after birth, and is preceded by a whimpering or fretfulness of the child, more or less rigidity of the muscles of the neck and back, and with an inability to nurse. The convulsions return again and again, and in a few days the child dies.

The cause is doubtless pressure on the brain, which may be predisposed by prolonged labor, or a highly ossified cranium. I allude to this subject that I may speak of a method of treatment, to which my attention was called early in my professional life by an old practitioner, and which my observation,

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so far as it goes, leads me to regard of very great importance. The idea is that this disease is most frequently caused by pressure of the occipital bone, resulting from the habit of placing young children on their backs altogether. The depression of this bone below the borders of the adjacent bones is easily observed. The cure is simply to place the child on one side, and when it shall have laid thus for thirty minutes, more or less, to place it on the other side. Generally, I think, it will be found that the convulsions cease, and that the child nurses, and recovery is complete. I think Dr. J. Marion Sims was the first to call the attention of the profession to this subject, and I do not believe it has yet received the consideration its importance demands.

LAWRENCE, May, 1875.

THE USE AND ABUSE OF ALCOHOLIC LIQUORS.

BY W. L. SCHENCK, M. D.

The title of the topic assigned to your committee is that of the "Prize Essay" of Prof. W. B. Carpenter, and if we differ in our conclusions from that distinguished physiologist, it may only prove that the world moves, and that science has not dallied in the lap of conservatism.

Though the action of alcohol has seemed long settled, and every tippler thinks he understands it, we believe it still surrounded with difficulties and but imperfectly comprehended.

The first question which presents itself in our inquiry is, What is alcohol? Prof. Hammond, in a recent inaugural before the New York Neurological Society, says "it is a poison." But as its effects have long been known as intoxication—*in toxicum*—his statement sheds no new light on the subject. What is their peculiar in the poison? What physiological and pathological changes does it produce? Correct answers to these questions may lead to correct views of its use and abuse.

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In its chemical combination we find it the radical of ether, or etherine and two equivalents of water: $H_4 C_4 + {}_2HO$; or we have the formula for ether and one equivalent of water: $C_4 H_5 + HO = C_4 H_6 O_2$, the formula for alcohol. When swallowed, there is abundant proof that it is not susceptible of any change, either by the action of the salivary secretion, or the gastric or the pancreatic juices. We think there is abundant proof that, undigested and unchanged, it is taken into the circulation, and may be found in the brain, nerves, glands, muscles and every part of the organism, but most largely in the nervous tissues.

If we examine the authorities to ascertain its action, we discover but little difference of opinion. The United States Dispensatory informs us that it is a powerful diffusive stimulant, giving energy to the muscles and temporary exaltation to the mental faculties. Professor Carpenter, in his Prize Essay, says: "It produces a general exhaltation of the organic functions, but it is obvious that the encephalic centers of the nervous system are acted upon by the stimulus, for we observe the manifestations of increased action in them, such as talkativeness, rapidity and variety of thought, exhilaration of spirits, etc."

Prof. W. A. Hammond, in the address already referred to, says of its action: "The nerves and circulating system become excited, the mental faculties are more active, the face becomes flushed and the senses more acute. If the potations are continued, the complete command of the faculties is lost, and a condition of temporary insanity is produced. If further quanities are imbibed, a state of prostration, marked by complete abolition of the power of sensation and motion, follows."

Such have been the opinions of the profession upon the action of alcohol, and in them there seems a determination to make its therapy square with a preconceived idea of its action, *that it is a stimulant.* What is a stimulant? From *stimulare* —to goad; a medicine that has the power of exciting organic action in the different systems of the economy. Wood and Bache inform us it is a powerful stimulant, but they tell us it diminishes the disintegration of tissues. The effect of a stimulant

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is to increase functional activity, organic action, and consequently increase destruction and waste. Dr. Wood comes to the relief by suggesting that it acts as a nutrient and promotes digestion, causes the more thorough appropriation of food, and thus more than counterbalance the waste implied by increased action. This does not solve the difficulty. It is not a question of increased saving of food, but of decreased waste of tissue; and the assumption that it is a nutrient, that it increases digestion and saves more than is wasted, does not explain how, if it is a stimulant, its action can lessen destructive metamorphosis, or how "additional energy" can be "given to the muscles and temporary exaltation to the nervous system" without an increase in the destruction of molecules, and increased waste. Increased activity always implies increased destruction.

Having decided alcohol a stimulant, these physiological defects in its action, as such, must be explained. Prof. Hammond comes to the rescue with the bold assertion that it is not only a food, but that it turns the organism into an engine capable of working its steam over *ad infinitum*. He says: "By entering into combination with the first products of tissue-decay whereby they are again assimilated without being excreted as urea, uric acid, etc." So alcohol forms a chemical union in the organism with the cells worn out by use and decay, prevents there being excreted as "urea, uric acid, etc.," fits them again to take their place in the organism, and adds to its growth and vitality. Wonderful agent! Well might De Villenuve believe, when he discovered it by the process of distillation, that he had found the "*eau de vie*," the wonderful elixir in search of which De Leon spent his life among the mountains and the plains, and along the mighty rivers of the new-found world.

The chief difficulty with the assertion of Prof. H. is, it is *only* assertion. He has not proved that $C_4 H_6 O_2$ can act as food to the body, or that it can be broken up and be made to unite with "urea, uric acid, etc.," $C_4 H_4 N_2 O_2$ and $C_5 HN_2 O_2 HO$, so as to convert them into food. It simply arrests metamorphosis because vital action is lowered, but the excretion of urea and uric acid, not being a measure of vital action, is

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not lessened. My old preceptor, though not a learned professor, had a much simpler and clearer conception of its action. Some years ago, when he had unfortunately become the victim of this "stimulant," and always smelt of alcohol and ether, he met me with the expression, "Pickled, by God! pickled!" Believing that it prevented excessive vitalization and consequent destruction of the body, he proposed to preserve his by drinking alcohol and inhaling ether, but he soon found his theory fallacious, and fell an easy prey to disease. If by the use of a little alcohol we could keep the body running by reconsuming its excreta, by adding to this fuel an ordinary meal we should have increased heat; but, as we shall see, the use of alcohol involves a decrease of animal heat as well as of the excreta which marks vital activity, while the increase of both is the result of stimulation.

But alcohol cannot convert into food an innutritious and deleterious agent with which it cannot enter into chemical union. Urea readily dissolves in it without forming any chemical combination, whilst uric acid is insoluble in both alcohol and ether; and the use of alcohol, so far from consuming, absolutely increases the solid constituents of the urine, and converts urea into the lower form of uric acid.

Lehman says, in his Organic Chemistry: "I have observed in myself, and several other persons, that if indigestible food, or spirituous liquors not sufficiently spiced, be taken shortly before bed-time, the morning urine always deposits considerable sediment. While in the normal state the ratio of uric acid to urea=1:28 to 30, I found the ratio 1:23 to 26, and that the ratio of uric acid to the other solid constituents, which is ordinarily about=1:60, was now=1:41 to 52, so that the amount of uric acid is here not only increased at the expense of the urea, but also at that of other solid constituents of the urine." This increased excretion of uric acid is no evidence that alcohol has stimulated, but that it has lowered vitality, and produced a disturbance in digestion and the relations of the respiration and circulation. The excretion of urea and uric acid is never a measure of vital action or normal tissue-decay, but rather of diseased action resulting from indigestion, disturbed balance, etc.; while the amount of carbonic acid

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excreted through the lungs is a good measure of the amount and kind of food taken and digested, and of destructive metamorphosis. If, however, an excess of nitrogenous food is consumed, it does not increase the excreta from the lungs, but is rapidly decomposed in the blood, and large quantities of urea are excreted. (Lehman, vol. II, p. 454.)

"We especially observe the formation of such sediments' (uric and the conjugated acids) "when for any reason the due interchange of the gases in the lungs does not take place, or when from disturbances in the circulation the blood does not really permeate the pulmonary vessels. A sediment of this kind may be noticed in men and animals when there is an insufficiency of proper exercise. In fully-developed emphyzema, or even when only a part of the lung has lost some of its elasticity, a sedimentary urine is one of the most common symptoms. Enlargements of the liver, etc., are associated with disturbances in the circulation, and hence give rise to sedimentary urine. In fever also, the due relation between respiration and circulation is no longer maintained, and hence there is an augmentation of uric acid in the urine; for none but mere chemist could be led to the erroneous idea that in fever too much oxygen is conveyed to the blood—in short, that fever is attended by too rapid a process of oxidation. If the urea be produced from uric acid by the partial oxidation of the latter, anything impeding this process must cause less urea and more uric acid to be separated by the kidneys, and hence we see why the amount of uric acid must be increased in fevers, and other disturbances in the respiration and circulation. We regard uric acid as a substance which stands one degree higher in the descending metamorphosis of matter than urea." (Lehman, vol. I, p. 199.)

So alcohol, instead of reconsuming urea and uric acid, as claimed by Prof. Hammond, by disturbing the process of digestion and the balance in economy, lower vitality and manifests itself by an excess of uric acid excretion.

We find its action upon the excreted carbonic acid gas quite different. Prout was the first to prove that it diminished this exhalation, and his observations were confirmed by Vierrvordt. Lehman says (Phys. Chem., vol. II, p. 456): "Although in our

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considerations of the influence exerted by ordinary food upon the respiration, we have deduced the results of the observations in question from purely chemical relations, we should quickly see, were we to adopt the same method in reference to certain substances which are occasionly introduced with the food into the organism; such, for instance, as the etherial oils, alcohol, theine, etc. We do not mean that these substances form any exception to this fixed law of nature, but the immediate effect which they produce reminds us there are nerves in the animal organism which exert the most important influence on all its functions, on nutrition as well as on respiration, and that consequently they in some degree disturb that uniform course of phenomena which we might suppose would result from chemical laws. We cannot, therefore, believe that alcohol, theine, etc., which produce such powerful reactions on the nervous system, belong to the class of substances which are capable of contributing towards the maintenance of the vital functions. We see this, for instance, in the case of alcohol, which, when taken with food, diminishes the pulmonary exhalation instead of augmenting it."

Its physical action alone would lead us to anticipate this result. When brought into contact with the softer tissues, it produces corrugation, the result of the difference in their capillary attraction for alcohol and water—the volume of water expelled being larger than that of alcohol absorbed. Baron Liebig found that in a piece of fresh bladder, three volumes of water were displaced by one volume of alcohol. This result will be increased or diminished by the amount of soluble albumen in the tissues and the purity of the alcohol, but will occur whenever alcohol comes into contact with the soft tisses; and Prof. Carpenter tells us that it thus prevents or retards the higher vitalization of the blood, and thus it facilitates its decomposition and the formation of urea and uric acid, whilst it checks constructive and destructive metamorphosis, and lessens the excretion of carbonic acid from the lungs.

If alcohol is taken into the mouth and stomach, it must interfere with the secretion and excretion of the salivary and gastric glands, hence the "dry mouth" of the dram-drinker, with its sparse, frothy secretion. Prof. Wood, in the United

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States Dispensatory, says it "promotes digestion and sanguification;" and Dr. Peters, of New York, is reported to have said, in the discussion on Prof. Hammond's paper, that "it increases the amount of the gastric juice." Are not these statements opposed to both philosophy and observation? Dr. Beaumont, in his experiments on St. Martin (IX to XIV, second series), found when he had been drinking pretty freely, the gastric secretions were vitiated, and mixed with a thick, ropy mucous. This sort of gastric juice was in no way favorable to rapid or healthy digestion, and was excreted from a membrane inflamed and studded with apthous patches. He also tells us that "the use of ardent spirits—wine, beer, or any intoxicating liquor—when continued for some days, invariably produced these changes." How can alcohol, an agent that corrugates the tissues and hebetizes the nerves, stimulate the secretion or excretion of the gastric fluids? Food is the stimulant that causes the excretion of pepsin, and probably, to a limited extent, its secretion; but is not the sense of hunger the result of engorgement of the gastric vessels with gastric juice, gradually eliminated from the blood during the hours of fasting, and the sensation of comfort that follows the proper gratification of appetite the result of their disgorgement? If it was not already in its appropriate vessels, ready to obey the demand for digestion when our meals are swallowed, could the large quantities excreted be secreted with the rapidity with which they are poured into the stomach? For what purpose is it excreted? To digest the food. Alcohol is indigestible, and nature seldom makes mistakes. The physical, physiological and chemical action of alcohol alike tend to prevent the secretion and excretion of the gastric solvents.

Prof. Hammond's deductions from a series of experiments made upon himself, in which he found the weight of the body increased under the moderate influence of alcohol, are, that it retards the decay of tissue, diminishes the consumption of fat, and increases the assimilative powers of the system. These deductions are not in accord. By what action was the destruction of tissue arrested? Can the same power that retards destruction increase assimilation? If the chemical action of alcohol renders the tissues less destructible, or if its action on

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the nerves lessens their action on the tissues, can it at the same time diminish regressive and stimulate progressive metamorphosis? In a second series of experiments, he found that a diet that involved a daily loss of .28 of a pound, with the use of alcohol caused a daily gain of .03 of a pound, and hence he concludes alcohol is food. If he had measured the excreta from the lungs, he would have found the cause of gain in the arrest of destructive metamorphosis; or it might be found in a more perfect digestion and assimilation as a secondary result of the mellowing influence of wine.

Chambers, in his work on the Indigestions, gives "CASE LXIX.—Rev. N. R., a bachelor of middle age, came to me November, 1865, saying that when he dined out he could digest anything, and never suffered, no matter how rash he had been at table; but when he took his meals alone for several days together, his old symptoms of indigestion returned, and no carefulness or abstemiousness prevented them.

"CASE LXX.—A scientific man, of middle age, deeply occupied in his pursuits, and never in the habit of indulging in amusement of any kind, complained to me that when he dined alone, as he usually did, on the plainest food, he invariably vomited after meals; but in dining out, he never suffered from nausea."

Studiousness at meal time, anxiety, care, may divert nervous influence, or lock it within the brain, so that quantities sufficient for digestion are not imparted to the stomach, whilst good company opens the portals of the brain, and the patient laughs and grows fat. The direct effect of alcohol would be to derange and retard digestion, but by its mellowing influence, drowning anxiety and care, it may more than counterbalance its injurious tendency, digestion and assimilation be improved, more got out of a meal than could be obtained without it, and a gain in weight, where otherwise there would have been loss.

Upon the same principle the morose and sullen, who not only eat without thanks, but with much fault finding, might find their digestion improved by a little grog at meal-time. People generally eat more than they digest and appropriate, and if the hindering causes to perfect digestion could be removed, there would be a gain in weight from a diet that now involves

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a loss. Though alcohol may for a time seem an advantage in such cases, the intelligent and honest physician never rests his case on a prescription given to relieve a symptom.

We can easily understand how the weight of the body may be increased through the agency of alcohol, without considering its action on digestion by the saving of tissue, and by an absolute increase of fat. Oil is not only the fuel of the system, of which the lessened heat of the body and excretion of carbonic acid shows there has been diminished consumption under the action of alcohol, but it is believed to have some agency, not yet well defined, in the metamorphosis of fluids into solids—the renewal of life. By its power of comminuting oils, alcohol may aid in their digestion, if emulsification, absorption and deposition can be called digestion, for oil undergoes none of the changes effected by the digestive solvents in amilicious and albuminous ailments, and so from an arrest of destruction and an increased deposition of fat there may be increased weight in the body, but when long continued its use may fail of even this effect. In the old beer drinker fatty degeneration is not unusual. In some of these cases, as age creeps on, there seems an arrest of the absorption and deposition of fat, and all becomes consumed, except that deposited in the omentum, leaving the "pot-belly," while the skin hangs loosely about the limbs, like the "lean and slippered pantaloon."

It is claimed that alcohol is an appetizer, and so it is; but not a stimulator of appetite. The intricate and varied processes of nutrition are regulated by a presiding power, which determines the quantity and quality of food required. In a healthy system the exercise of this power produces a pleasurable excitement, in which the system generally participates. When deranged there are often unnatural cravings, and both the quantity and quality of food are disregarded. It is this kind of appetite which characterizes the action of alcohol in all its stages. The man eats and drinks mechanically, with little regard to quality, and without metes or bounds. The power that regulates appetite is dethroned, and a demon fills its place. We observe the diminished innervation of the gastric nerves in the frequent regurgitation and vomiting that follows

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drinking. Vomiting, after drinking alcoholic beverages, is as much a result of paresis of the gastric nerves, as is sea-sickness, where, as Prof. Chambers remarks in his work on the indigestions, "The principal cause of vomiting in those unused to it by the motion of a ship or carriage, by swinging, waltzing, and the like, I believe to be the relaxation of the œsophagal sphincter by the vibration. The body being at rest, or rotated on itself, and the œsophagus hanging somewhat loose in it, the jar is strongly felt, and the involuntary plexus, supplying these muscular fibres, is temporarily paralyzed by it. In fact, a succession of small strokes produces the same effect in inaccustomed nerves as one single, severe concussion." Yet, in the diseased and irritable stomach of the dram drinker, a little alcoholic paresis is necessary before his breakfast will stick.

Prof. Carpenter tells us in his Prize Essay: "The corrugating effect of alcohol will usually be increased by the coagulating influence which it will exert over whatever soluble albumen the tissues may contain. But these results will, of course, be proportioned in their degree to the state of concentration of the alcohol, but some such change must always take place in the walls of the stomach whenever alcoholic fluids are introduced into it; and in the soft tissues of the body at large, whenever alcohol has found its way into the circulation. * * Among the most important of the chemical changes which it has the power of effecting is the coagulation of soluble albumen, and though it will rarely if ever be introduced into the blood, or into the serous fluids of the tissues, by any ordinary alcoholic potations, in a sufficiently concentrated state to effect this, yet we should anticipate that its presence, even in a very diluted form, *must* affect the chemical relations of albumen, and can scarcely do otherwise than retard that peculiar transformation by which it is converted into the more vitalized substance, fibrine. * * * Now the inference to be drawn from the proceeding details is, that alcohol, when applied to the living tissues in a sufficiently dilute form, *exalts* for a time their vital activity; but this exaltation is temporary, and is followed by a corresponding *depression*."

In the face of the immediate devitalization which this distin-

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guished physiologist believes results from the inception of even the smallest and most dilute quantity of alcohol, he tells us "it *exalts* for a time," (and the italics are his own,) "vital activity." He further informs us that "our best knowledge of the influence of alcohol upon the vital actions of the animal tissues is derived from microscopic observations upon the circulation of blood in the web of a frog's foot. If the alcohol be applied to this membrane in a *very dilute* state, its first effect is to quicken the movement of the blood through the vessels, which are at the same time rather contracted than dilated, but this state of things gradually gives way to the opposite; for after a time, which varies with the degree of dilution of the alcohol, the circulation becomes retarded and the vessels dilated. If the alcohol have been applied at first, however, in a less dilute form, the first stage is not observed; but a retardation of the blood is immediately brought about, and a considerable dilatation of the vessels takes place." And this first effect the learned professor regards as the result of stimulation. When the alcohol was first applied in a dilute form, he found the vessels contracted. Why? Because, as he has informed us, alcohol contracts, corrugates the soft tissues, and then for a brief space the blood flowed more rapidly through these narrowed vessels. How could it do otherwise? Its action has not yet impressed the heart, and under its impulse the same amount of blood forced through these narrowed channels must have its velocity increased. This state of things gradually gave way to an opposite condition—dilatation and remora. The nerves gradually becoming paralyzed, vital tonicity was lost, and the vessels dilated with local congestion was the result. Of course, when stronger alcohol was used, paralysis was the immediate result, and no stage of increased rapidity occurred but immediate dilatation and remora. The calibre of the blood vessels is regulated by the amount of nervous irritability, and dilatation is only an evidence of diminished nerve force, of vaso-motor paralysis.

If the alcohol is sufficiently concentrated, immediate death follows its application. Immerse an earth-worm, or the leg of a frog in strong alcohol, and they never afterward move.

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Swallow it, and immediate death ensues, probably from paralysis of the pneumogastric.

Authors see in the flushed cheeks that follow a drink of alcoholic liquors the evidence of stimulation. We have known persons to make paresis of the cheeks their gauge in drinking. If I take a glass of any alcoholic beverage, the first appreciable effect is numbness of the cheek. Is not the flush the result of congestion consequent upon paralysis of the nerves controlling the capillary action of the vessels? and, if so, how can it be considered an evidence of stimulation? Under the influence of alcohol there is diminished vaso-motor activity, and hence vascular dilatation, and the functional energy of the superior ganglia of the nervous system is gradually diminished to a negative existence.

Pain is adduced as another evidence of its stimulating effect. Is pain a result of increased vitality? Perfect health feels no pain. Every departure from health is a decrease of vitality; every pain is the expression of a departure from health.

Authors speak of the increased frequency of the heart's action as a result of alcoholic stimulation. Is increased frequency an evidence of increased vitality? Is the countless flutter of the heart, when death is about to close the scene, an evidence of stimulation, or is it not rather an evidence of interruption of nervous influences through the pneumogastric, and of the enfeebled heart making the vain effort to supply force by frequency of action?

We are informed by Prof. Carpenter, page 118, "Prize Essay," that "the power of alcoholic liquors to enable the body to resist the depressing influence of extreme cold, is perhaps the best established of all its attributes, not merely in the estimation of the informed public, but in the opinion of those who have scientifically considered the question. This is by no means surprising," he says. "The genial warmth which is experienced for a time when a glass of spirits is taken on a cold day, appears to afford unmistakable evidence of its heat-producing power; and the chemical properties of alcohol would seem to indicate that, under such circumstances, it does not merely act as a stimulant, increasing the activity of the circulation and augmenting nervous energy, but that it also affords

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the material for that combustive process by which the heat of the body is sustained in a form peculiarly suitable for rapid and energetic appropriation to this purpose." Are not these conclusions jumped at, rather than reached by logical reasoning or careful experimentation? Does not both logic and experiment prove that the heat of the body, and its power to endure long exposure to cold, are lessened by the use of alcoholic liquors? That the heat of the body is lowered, any one may easily prove with a little alcohol and a thermometer. Dr. Hall and other arctic explorers are uniform in their testimony that it lessens the power to resist the continued influence of cold. Statements to the contrary have arisen under the preconceived opinion that it stimulates; and if so, it should increase the warmth of the body and enable it to resist continued exposure to cold. Let us inquire what it does, and how it is done.

On the 28th of January, 1872, I was called to see a patient fourteen miles distant, and detained over night. On the 29th, the thermometer had fallen several degrees below zero, and a Kansas nor'wester was sweeping the prairies. I dreaded to take the saddle, but called for my horse and *the bottle*, drank all I thought I could carry, and mounted. In three-quarters of an hour I made the first house, ten miles distant. I stopped a few moments to let my horse blow, took the saddle again and finished my ride, feeling but little chilled or tired. Could a test have been applied, both my temperature and metamorphosis would have been found less than without the brandy, but not so much less as they would have been had I *felt* the depressing influences of cold and fatigue. Thus the power to endure temporary exposure was improved because I did not feel it; but wo betide him who takes too much of the anesthetic, or outrides its effects. "The authorities" inform us "It gives additional energy to the muscles, and temporary exaltation to the mental faculties." While a man may lift and labor under its temporary influence as he would not without, does it necessarily follow that it must have stimulated? Has it not rather changed his appreciation, both of his own powers and the resistance to be overcome, and he lifts and labors for a time as though he could do all things? Not appreciating

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the magnitude of the obstacle, or the metes and bounds set to his own powers, he puts forth every effort, accomplishes more than he could have done under an ordinary conception of the realities of life. The nervous system is energized under the action of a will that beholds nothing too great for its accomplishment; not because vital action has been increased under the alcoholic potations, but because the appreciation of difficulties has been diminished or removed. There has been a subtraction rather than an addition of force, but a subtraction that allows the force in existence full play. Sleep is the same kind of a stimulant, and hence we have such cases as the following: A. B., living near Newark, New Jersey, in a state of somnambulism, went for several nights into a field, removed his shirt and placed it beneath a stone; when awake, he was unable to move the stone. The same force is manifested by the mesmerized. J. H, when in the mesmeric state, held two men; when out of it, he could not hold either. No vital force or stimulus is imparted by either sleep or mesmerism, but the appreciation of obstacles is removed. Under the influence of a will which holds nothing impossible, all the force they possess is exerted.

We are taught "it gives temporary exaltation to the mental powers," or, as Dr. Hammond expresses it, "it is mildly excitatory of the intellectual faculties." Under such teaching, thousands have sought intellectual exaltation in this cheap way, and gone down prematurely to dishonored graves. Whatever the relations of mind and matter, a physical agent that stimulates mental activity does so by stimulating cerebral action, and mental activity always results in increased cerebral action. Thus, we may always observe, in those who have had portions of the skull removed, an increased fullness of the brain when there is increased mental action. But Prof. Hammond tells us in his inaugural: "I trephined a dog, and screwed a cephalo-halometer into the opening made by the trephine in the skull. I then administered an ounce of alcohol diluted. In fifty seconds I detected alcohol in the expired air; in four and a half minutes the respiration was accelerated, the action of the heart became more rapid and strong, and the pupils were beginning to contract; still there was no increase in the

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intra-cranial pressure, and I therefore knew up to this time the amount of blood on the brain had not been increased. In six minutes and a half the dog's gait was staggering, and though his movements were uncertain, there was no paralysis. The intra cranial pressure was still unaltered. The fluid remained stationary in the tube of the instrument until seventeen minutes had elapsed. Then it began to rise slowly, and with this increase of the intra cranial pressure paralysis of the posterior extremities supervened. As the amount of blood in the cranium became greater, the paralysis extended, the pupils dilated, and coma ensued." There was no increased circulation within the brain, no increased quantity of blood there, until after the period had passed in which we are told alcohol stimulates and produces increased mental activity. There was no increase in the volume of the brain, except from congestion, produced in the same way we have seen it occur from its local application to the web of a frog's foot, and it was probably local application that produced it in the dog, for the brain, containing a larger amount of albumen than any other portions of the body, takes from the circulation a larger amount of alcohol. If alcohol produces no increase in the volume of the circulation in the brain, one of the pathognomonic evidences of stimulation, until it causes congestion, manifested by paralysis and coma, how can its action be "excitatory of the intellectual faculties?" Surely, cerebral congestion is not an evidence of increased vital activity, or especially favorable to "temporary exaltation of the mental powers." If mental force was given by alcoholic liquors, there would be clearer conception of the realities of life, and a more intelligent or determined effort for the removal of difficulties. But the man surrounded by financial troubles either mourns over magnified disaster, or is rich as Crœsus and merry as Bacchus. With a few drams ahead, a General rides down his line where the enemy's balls are thickest, shouting: "Shoot them, d—n them, shoot them! Don't be afraid; if they can't hit me, they can't hit a barn door." Neither perceiving nor appreciating the danger of his position, he rushes on to needless slaughter. It may have drowned cowardice; it has not developed courage, but only destroyed the perception of danger. As the ground

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of success in medicine is correct diagnosis, without which all is empiricism, so a mental and moral stimulant is that which gives the intellectual force which enables us to clearly perceive and correctly appreciate the obstacles to be overcome, as well as the power to combat. Can that be considered a stimulant which makes us cease to see or feel approaching danger, makes us joyous under its pressure, and reckless of its consequences? Instead of the intellectual faculties being stimulated, are they not blunted, hebetized? Instead of seeing more clearly the realities of life, is not the link that binds to earth loosened, and all correct appreciation of its true realities lost? But there is a positive effect. The orator may surprise himself and his friends by the eloquence of a speech made while under the influence of alcohol, yet it does not follow that it stimulated thought. Very few persons become so accustomed to public speaking that they can take the rostrum or the pulpit without trepidation. They feel they have not fully mastered their theme, or that they cannot make it as clear to others as it seems to themselves, and will not equal the expectations of their hearers or their own hopes; or some care behind disturbs or distracts their thoughts. Under such circumstances they necessarily give their subject a divided mental force. With a little alcohol in their brain they forget their cares, and cease to regard either their own inefficiency or the expectations of their friends. They give them, as they express it, "the best shot in the locker," and, being oblivious to all else, often meet with unexpected success. Mental action has been increased by removing the clogs, while vital force has been positively diminished. We have a patient, suffering with capillary catarrh; we open a vein, and he breathes easier. We have not stimulated by our depletion, but removed the obstruction that prevented arterialization of the blood. Carry the bleeding too far, and though you may remove the congestion, you produce an exhaustion fatal to vital action. Let the orator take a glass too much, and the brain responds so feebly or irregularly to the action of the soul that his thoughts become discordant, and his utterances the drivelings of imbecility, or the ravings of insanity. Prof. Carpenter says the evidence that it stimulates is seen in "the talkativeness, rapidity and

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variety of thought." These may occur with an absolute decrease of mental force. "The fool is known by his much speaking," and "he knows it half, speaks often, and is always wrong." Alcohol may remove the weight that depresses the soul, and the heart beat more freely, and nervous influence is generated and imparted more generously to the organism.

The too delicate sensibility of the soldier makes him feel keenly the danger of opposing bullets. How much *stimulus* will it require to make him feel they are not dangerous? Financial difficulties are seen and appreciated. What *stimulant* will make us cease to perceive them; joyous under their pressure, and reckless of their consequences? Can a stimulant make us cease to feel and appreciate the natural hopes and fears of the soul? Instead of the senses being goaded, they are hebetized; instead of the soul being impressed by a stimulant, it is under the influence of an anesthetic. Is not the real difference between a small and a large dose of alcoholic liquors, not that while the first stimulates the other depresses, but that the first has partially severed the link that binds to earth, rendered us partially oblivious to our surrounding, while the other buries us beneath the Lethean wave? The nerves of intellection, if you will allow the expression—the intellectual brain, is affected precisely as the nerves of sensation. Before chloroform, we gave our patient some alcoholic anesthetics; and every one who has tried it finds he cares little for the pulling of a tooth after taking a glass of whiskey, and so the drunken man in his drunken brawl, or drunken fall, gets his teeth knocked out, and scarcely knows he is hurt. And why should not alcohol produce an action allied to that of ether? Their formula is nearly the same, and who will diagnose between the pathological condition of drunkenness and etherization? All the powerful anesthetics are but combinations of alcohol; Chloral hydrate (chlorine) passed through alcohol; chloroform, chloride of lime with alcohol; and so with bichloride of methyline, ethylic ether, chloride of ethyl, bromide of ethyl, etc.

From their earliest history alcoholic liquors have prevented a proper conception of the realities of life, and have been given and taken to hebetize conscience, to destroy the perception and impression of difficulties and disasters, and to assuage pain

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while their action has been persistently considered stimulating When the daughters of Lot desired their father to commit a crime against which they felt his soul would revolt, they hebetized him with wine; and since then the vast majority of criminals have blunted their consciences with the same "*stimulant.*" King David prescribed it to destroy the sense of honor in that grand old soldier who declared, "While the ark, and Israel and Judah abide in tents, and my lord Joab, and the servants of my lord, are encompassed in the open fields, shall I then go into mine house to eat and to drink, and to lie with my wife? As thou livest, and as thy soul liveth, I will not do this thing."

Some distinguished physicians seem to concur with De Villeneuve, that he had discovered the water of life; so promptly and perfectly does it seem to relieve suffering and sorrow. Dr. Brown, author of the Brownian theory, believed it "augmented and developed the force of the nervous functions," and lectured and demonstrated with a bottle at his side, but early demonstrated the fallacy of his teachings by a premature passage to the grave. Dr. Baird, a ripe scholar and excellent physician, believed that, while it blunted sensibility to the pains and annoyances of life, and allowed the spirit to soar untrammeled in the regions of the ideal, it prevented excessive vitalization and destruction, and thus preserved indefinitely the body. But he often quoted "*Non vi rosa senza spina,*" and fell an easy victim to his philosophy.

Experience brought Nature's poet nearer the truth than the philosophy of our scientists:

> "Gie him stong drihk until he wink
> Who's sinking in despair,
> And liquor gude to fire his blude
> Who's pressed wi' grief and care;
> There let him bouse and deep carouse
> In bumpers, flowing o'er,
> 'Till he *forgets* his love and debts,
> An' *minds* his griefs na more!"

But this glorious anesthesia did not shield him from "fell death's untimely frost."

From whatever standpoint we examine it, we find the physiological action of acohol that of an anesthetic, and not that of

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a stimulant; that instead of stimulating it lessens vital action, and that herein we find its use.

The people use it as a universal panacea. If cold or hot, wet or dry, sad or joyous, it makes them oblivious to their surroundings, and so seems to remove them. Quackery makes the same use of it, and there are not a few in the profession, claiming a more honorable position, who play the Hostetter, seek to "cover the sore," and gain a cheap glory, or, perhaps with no more prescience than the people, take a seeming benefit for a reality.

It has been largely recommended and used in phthisis. It arrests for a time destruction, and covers the felt ills of the disease; but proves only a masked battery, behind which the enemy strengthens himself for the onset. Arrest of destruction and sensation avails little here without a renewal of life that shall prevent tuberculous deposition, which can only be effected by increasing the power of digestion and absorption, and raising vital action above the level of fibrinous deposit. This alcohol cannot do. It may assist in the emulsification of oil; and oil, we know, assists in some unknown way in the renewal of tissue. Beyond this it has no medicinal virtue in phthisis, except it be to relieve the depression of one who feels the hand of the giant destroyer is upon him.

When destructive metamorphosis is greatly in excess, as in the low types of fever, it may be used advantageously to hold it in abeyance, and to relieve the felt sense of exhaustion, while we build up with milk, beef, iron, quinine, etc., and remove by appropriate agencies the poisons that threaten life It is used in extreme exhaustion, and often relieves its felt sense. In dejection, in syncope from mental and moral depressions, it relieves in the proportion that it destroys or diminishes the perception of a regard for them. In many painful affections it act beneficially. Thus in colic it anesthetizes the nerves, lessening their perception of the irritant cause and the resultant pain. In the same way it prevents the full impression of some of the specific poisons, as well as the nervous depression consequent upon mental emotion, and hence it has long been used as a popular remedy for the bite of the rattlesnake and other venomous serpents. The moral shock in

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surgical cases is promptly relieved by its use. Early in the late war, a soldier was brought to me, during the battle, gasping, fainting, apparently dying. Upon examination I found only a flesh wound, and said to my assistant, "Give him plenty of brandy." He took over a pint, and gave us no more trouble. Alcohol may generally be used advantageously to allay a pain or assuage a grief too deep for endurance, to relieve the sense of exhaustion, to arrest excessive metamorphosis—to blunt nervous sensibility. Whatever theory of its action they may hold, in such cases it has always been used by intelligent practitioners, who would never think of prescribing it as a stimulant to their jaundiced patients to arouse a torpid and congested liver, or in any similar class of diseases. While in many cases it relieves the symptom, we must remember it does not often remove the cause, and if nature is incapable of doing that, the *sore* may spread under the cover until incurable. When used, we should prescribe with it such curable agents as the case may require.

The abuse of alcoholic liquors has commonly been termed appetite—unfortunate appetite; but most beginners require many additions to make alcohol palatable before they can be induced to drink. It is the product of vinous fermentation, and hence exists in all vinous and spirituous liquors, and those who drink it because it is palatable require that it shall be combined in its manufacture with various extractive principles—volatile oils, acids and salts—or doctored with sugar, etc., when drank; but the old toper, who has what is called an "appetite," usually throws it down his throat like so much liquid fire, for some purpose beyond the enjoyment he experiences in drinking. To ascertain what that purpose is, is to discover the reason for its abuse. It is not at the social party, where men sweeten their brandy and sip their wine, that we see the victims of alcohol. They may there learn its use, and to disregard the fact that "wine is a mocker;" but ere its abuse causes habitual drunkenness, and the terrible catalogue of diseases that follow in its train, some other cause than appetite or fashion must be discovered for its continuance. Call it alcoholism, oinomania, dipsomania, whatever you will, it is never so much madness as imbecility. Trelat says: "Drunk-

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ards are men who get drunk when they have a chance of drinking. Dipsomaniacs are people suffering from disease, who get drunk whenever they get an attack of their peculiar disorder." We say drunkards are cowards, who, instead of meeting the responsibilities and trials, the difficulties and dangers of life like true and noble men, dodge behind the glass of alcoholic spirits. If the daily cares of life seem too great, they drink and forget; if financial embarrassments oppress, they drink and are rich; if conscience accuses, they drink and disregard; if labor wearies, they drink and are refreshed; if pain tortures, they drink and are relieved; and when they give themselves up to joy, they drink, and all else is buried beneath the Lethean waters; and every time they have dodged the trials incident to life they have weakened their powers of resistance and endurance, until at last the slightest difficulty, the most trifling annoyance, "trifles light as air," seem too heavy to be borne, and they hasten to dodge behind their glass, until, mental and moral wrecks, deprived of all power to resist the temptation to dodge, and tortured by one or more of the legion of physical diseases consequent upon their drinking, they dodge into a premature grave.

Prof. Hammond tells us "the advocates of total abstinence have generally indulged in invective instead of argument;" that "the presence of alcohol in the blood and brain, to those who look superficially or ignorantly at the matter, has rather a horrible aspect. Doubtless the brain of a person who had dined on onions would exhale the characteristic odor of that vegetable." We have yet to learn that eating onions ever produced any great amount of disease, and yet this learned President of the New York Neurological Society tells us in the same address that alcohol, when taken into the blood and brain, has produced in the nervous system alone, and under his own observation, in his own practice, the following rather horrible catalogue of diseases:

Cerebral congestion.

Cerebral hemorrhage, with its consequences, apoplexy and paralysis.

Meningial hemorrhage.

Cerebral thrombosis,

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Softening of the brain.
Aphasia.
Acute cerebral meningitis.
Chronic cerebral meningitis.
Abscess of the brain.
Multiple cerebral sclerosis.
Every variety of insanity, including general paralysis.
Spinal congestion.
Antero-lateral spinal sclerosis.
Posterio-spinal sclerosis (Locomotora toxia).
Epilepsy.
Chorea.
Multiple cerebro-spinal sclerosis.
Athetosis.
Anasthesia.
Paralysis agitans.
Neuralgia in all situations.
Neuritis.
Neuro-sclerosis.

We have not inquired into the use and abuse of alcohol as an advocate of temperance, nor yet of moderate drinking, but have attempted to reason candidly upon the facts as recorded in the books and found in our own experience and observation, that we might ascertain the physiological action of alcohol, and thus discover its use and the cause of its abuse.

When we perceive that it lessens metamorphosis, deadens sensibility, and lowers vitality, we can comprehend its use in medicine, and understand how drunkenness and a terrible catalogue of diseases, mental, moral and physical, follow its abuse.

OSAGE CITY, KANSAS.

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CHLORAL HYDRATE.

BY I. S. MANNING, M. D.

One of the prominent and most important factors of disease is *pain*. The instant, constant, and ever-recurring demand of the patient is, that he be relieved from his suffering. Pain must be overcome; for pain kills. Hence the physician has frequent calls for anodynes. This class of the materia medica can never be too extensive to suit the requirements of individual cases: opium and its preparations, belladonna, hyosciamus, cannabis indica, chloroform, ether, hydrocyanic acid, and other preparations said to have anodyne properties—all have specific effects. Any addition to the list of pain obtunders is a desideratum; and no wonder, then, that, when Dr. Otto Liebrich, in 1869, offered chloral to the profession, it was seized with avidity. Its action, it was claimed, was summed up in the three words, *tute, cito, jucunde.* Myriads of hands dispensed the new remedy, and countless myriads drank it down. Chloral has been used extensively in every degree and variety of complaint, until now, from numberless facts reported by careful observers, it is possible to deduce some general laws respecting its use.

The formula for Chloral Hydrate is: $C_4 Cl_3 O+HO$, and it is generated by the action of chlorine on alcohol. It is in small pearly masses, of few grains weight, of peculiar and not unpleasant odor, bitter and slightly irritating to the taste, but not disagreeble if largely diluted.

That chloral is absorbed and carried into the circulation is admitted; but as to its behavior afterwards there is difference of opinion. No less than three theories exist as to the manner in which it affects the system. *First:* Being absorbed in the blood, it meets with an alkali, and chloroform is liberated; *ergo*, the action of chloral is the action of chloroform. *Second:* Another class of observers consider the small amount of chloroform as of little moment, but that the alcohol is the potent agent. Hence the action of chloral is that of alcohol. *Third:* Others, not satisfied with either of the foregoing explanations, consider the action of chloral as *sui generis*. While this last hypothesis cannot be considered as letting in a flood of light

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on the subject, still we get results from chloral that we would fail to get from the use of either chloroform or alcohol.

When shall we use chloral? Or, putting the question in a different form, shall we use it when there is call for an anodyne and hypnotic? This question will doubtless be answered in the negative from your individual experience. The number of failures you have met in which there was no good result, and sometimes positive injury, has taught you to discriminate. Perhaps it will be briefer to state first in what cases we need not expect good results from chloral. It is contra-indicated in all the plegmasia, rheumatism, traumabism, sthenic alcoholism, gastric and enteric fevers during the acute stage. After acute symptoms have subsided, chloral becomes a valuable adjuvant in quieting nervous irritability and producing refreshing sleep. It is of doubtful utility in hysteria, chorea, asthma and dysmenorrhea, each case being a law unto itself—that law being discoverable alone by experiment. Chloral is useful in prolonged wakefulness, the result of mental activity, or hyperæsthesia; in convalescence from fevers when nervous influence is uncertain and irregular; in the treatment of all stages of insanity it is the sheet-anchor; in chronic alcoholism and other ailments it often is preferable to opiates. It is worthy of trial as a prophylactic of puerperal convulsions. When given during the spurious pains preceding labor, it often gives two or three hours' refreshing sleep, quiets nervousness, and restores confidence to the expectant mother; and all this time labor is progressing a little more rapidly than would have been the case without its use.

The usual dose of chloral is 15 to 20 grs., which should be freshly prepared and largely diluted: there is no better vehicle than water. The dose may safely be repeated at intervals of three hours or longer. It has been used locally as an injection in urethritis, and hypodermically for the obliteration of varicose veins, which it does by setting up inflammation and causing abscess. Sprinkled upon indolent ulcers it is said to be useful as a stimulant and disinfectant; also as a lotion in sprains and bruises, 10 to 20 grs.; aqua, 1 oz.

Whilst 20 grs. may be considerdd an average adult dose, yet it is difficult to say how much may be taken with impunity.

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The late Dr. Madison Marsh, who sounds the tocsin of alarm at the prevalence chloral-tippling, (Med. and Surg. Rep., Jan. 16th, 1875,) speaks of 1 oz. being taken during a night. In the same article he speaks of 45 grs. proving fatal. There is on record the case of a physician who was killed with 60 grs. The writer took notes of the following case: Male child, aged one year; had 11 grs. chloral. Saw it in half an hour; there was profound anæsthesia—skin pale and cool, pulse imperceptible at wrist, heart-throbs faint and irregular, respirations slow and sighing, and some mucus rattling in trachea. In a few minutes placed patient in a warm bath; respiration ceased for a moment; dashed the chest with whisky and aqua ammonia; artificial respiration; turpentine enema; ar. spts. ammonia internally as soon as it could swallow; placed in warm blankets. At the end of six hours the functions seemed to have recovered equilibrium, but narcosis continued for twenty-four hours.

Among the unpleasant effects of chloral, sometimes attributable perhaps to an impure article, are gastric irritation, and a severe catarrh. The conjunctivæ and Schneiderian membrane become very much congested, and sometimes bronchitis is developed. Under the toxic effects of this drug, the pulse becomes irregular, the respiration slow and gasping, surface pale and cool. Then suddenly the heart ceases to act, and all is over. Treatment consists in the free administration of hot coffee, or brandy, warmth to the surface; the horizontal posture, with head low; in the last extremity, artificial respiration.

A frequent resort to the soothings of chloral is to be discouraged, not only from a moral point of view, but also to avoid destruction swift and sudden. The insidious action of this destroyer, the changes wrought on the heart and nervous centers, are not manifest until, without warning, with no opportunity of resuscitation, the victim is overwhelmed, and the functions cease forever. Then another death is chronicled, not to chloral, but to apoplexy, heart disease, or inebriation.

Since writing this paper, your essayist has learned that Dr. William B. Atkinson read a paper to the Philadelphia Medical Society on the same subject, which was referred to the State

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Society. It is not known whether said paper has yet appeared in print. From the great ability of the author, it will be safe to say that all that is now known of this remarkable drug will be embodied in its pages.

OTTAWA, KANSAS.

SOME OF THE INDICATIONS FOR THE USE OF FORCEPS IN LABOR.

BY GEO. W. HALDEMAN, M. D.

It need hardly be said that the indications which render the application of the Obstetric Forceps necessary to speedily terminate labor, should be clearly understood. As obstetricians we should be able to recognize and to comprehend the full import of the symptoms which foreshadow the often insidious approach of danger, and thus be prepared to avert, if possible, the very appearance of those conditions which portend evil to the mother, or threaten the life of her offspring. If this is a correct statement of the responsibility assumed in taking charge of a case of labor, it is evident that the physician ought to be held as criminally culpable, who will wait at his patient's bedside, and purposely avoid operative procedure until she has sustained a terrible, yet preventable, injury. In my opinion it is his imperative duty, *to prevent all damage,* by timely discovering the very approach of the destroyer, in whatever form he manifests himself, and by promptly applying the remedy, instead of hesitating and waiting. If he lacks ability to see, or nerve to act, his patient may be ruined; and if, after waiting perhaps too long, he operates as a denier resort, serious results are more than likely to supervene. And what is the consequence? Most likely, instead of admitting his ignorance or stupidity, he will endeavor to assure those interested that he has done all that the rules of our art, or the lights of our science, warrant us in doing; or probably he will purposely permit the reproach, consequent upon his failure, to rest upon the very instrument, which, but for his remissness or ignorance or cowardice, would have saved his patient's life.

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Let us for a little advert to some of the indications which make a resort to the forceps appropriate as well as necessary. Of those which are most important, *exhaustion*, or its approach, should be carefully studied. This condition is defined to be, or to signify, a failure of the powers of the uterus and of the general system. This inactivity of the womb, if it may be so termed, mostly becomes obvious before any serious local or general damage is done, and is often the first symptom which betokens the occurrence of probable complications. The uterine contractions up to this time may have been natural as it respects regularity and strength, but their force and frequency have gradually diminished, until they have lost all their propulsive properties, and the presenting part fails to advance. This condition of inertia having been fairly established, or become more or less complete, nausea and vomiting are likely to attract attention by their severity and persistance; but as they are often present, especially in the preliminary stage of labor, during the process of dilatation of the os, we must not fail to make the distinction as a basis of action. All the circumstances and surroundings must be carefully investigated. An examination by the touch should be made at once; and if the mouth be neither dilated nor dilatable; if the pains are duly active and increasing in intensity; if the matter vomited consists of undigested food, recently swallowed; if the thirst is neither great nor increasing; if the pulse remains in the neighborhood of eighty or ninety beats per minute, soft and full; if there has been no decided chill, but simple nervousness; and if there is no great increase or decrease of temperature to indicate the existence of inflammation, or a tendency to collapse, we may reasonably conclude that as yet nothing has transpired to excite apprehension. But if the reverse of these symptoms becomes manifest, or simply a tendency thereto, it behooves us to be on the alert. The pulse, while it increases in frequency, will become more and more feeble, and perhaps irregular; the thirst insatiable; the skin will become intensely hot, or be bathed in a cold, clammy perspiration; the matter vomited will become bilious, acid, and finally of a coffee-grounds nature, as in other grave cases of sickness. A development of all or even a portion of these symptoms,

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whether rapid or gradual, indicates danger, either present or very near at hand. As Prof. Byford puts it, "*it is indicative of mischief done;*" and if permitted to continue, will prove disastrous to the life of the patient. Minutes and hours are not to be thought of in the consideration of the question as to the length of time required by this state of affairs, to produce either serious or fatal results. We are incompetent to properly estimate the probable consequences of exhaustion by time, any more than we can calculate the dangers to be apprehended from any other kind of physical endurance by the hour. The time requisite to produce serious or fatal symptoms in a particular case depends on the capacity of the patient to endure suffering, and this can only be properly measured *by symptoms.* In the presence of symptoms so grave, and a condition so alarming, let us not permit procrastination, that old thief of time, to add to the list of crimes with which he stands charged —*that of murder.* The only remedy for the prevention of, or relief from, exhaustion and its consequences—I may as well say it here and now, for my convictions and experience corroborate the assertion—*is in promptly terminating the labor by instrumental interference.* And if there are any rules that do not admit of exception, this, in my humble judgment, is one of them.

Another condition requiring vigilance and promptness of action is inflammation, or symptoms tending to it, of the womb, vagina and other organs and tissues of the body immediately concerned in labor. The symptoms denotive of inflammation are often closely mingled with those of exhaustion. This is especially the case when the onset of the inflammatory action has not been discovered, and when exhaustion has supervened as the effect of the same causes which gave rise to the inflammation. When from long and violent exertion, this condition precedes the exhaustion of the muscular power of the womb, it becomes sensitive to the slightest touch. The pains, although they may be less efficient than ordinary, cause excruciating suffering. There is increased heat of skin and thirst; the pulse becomes fickle, corded, sharp and quick. In a word, tenderness of the uterus, accompanied with the other characteristic symptoms, and continuing for a longer or shorter time,

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is evidence of the approach, if not actual existence, of danger. The vagina, bladder, etc., are exposed to the same danger, probably more often than the womb, from long-continued pressure. The head is advanced into and perhaps almost through the pelvis, but on account of the disproportion between it and the child's head, it is arrested in its progress, squeezing the soft, tender tissues of the vagina, bladder, etc., against the bony walls of the passage. Thus, the capillary circulation is embarrassed, if not suspended; and the consequence is that a most destructive form of inflammation is soon established. This is the way an impacted head—a head arrested for a longer or shorter period in the pelvis—occasions trouble. A head may be arrested here, however, without being crowded. This is owing simply to insufficient uterine action. The head may even approach and press upon the perineum and labia, and between pains recede; and for a longer time it may do no more harm than in the case of impaction, but to all intents and purposes it is stationary. This state of affairs permitted to continue long enough will as surely develop the same results. Hence, here, also, time is not a suitable guide by which to estimate the consequence of a simple lodgment of the head in a pelvis, otherwise sufficiently capacious. A head arrested and impacted may give rise to destructive forms of inflammation of the pelvic tissues in from three to six hours, under the influence of efficient pains; but a head arrested simply for want of sufficient propulsive action, may remain double that time and not cause serious mischief. The difference between these conditions is easily perceived. The one fills the pelvis chock-full, so that the finger cannot be passed between the head and the pelvic canal; nor can the head, even in the absence of the pains of labor, be pushed back, or be compelled to recede. In the other case, the opposite of these is the rule, insomuch that the head recedes of its own accord. The parts in either case eventually become dry, hot, swollen, and inflamed. General febrile symptoms supervene, which are mostly preceded by chilliness. And now comes the critical period. Whatever is indicated should not be postponed on account of the weather. *We must act now*, with a full consciousness that danger is brewing, or that mischief has already been done.

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But still some one may be inclined to sing the old, old, song *wait*, "wait for the wagon." Why? That a little more harm may be done to your confiding patient? She has withstood a little, perhaps she can endure a great deal more suffering. We'll wait, and perhaps Providence will interpose a helping hand, and yet rescue our patient. Providence doesn't do any such thing! Through his agency, and the genius of man *means* have been provided. If we are physicians, indeed, we will know and understand what they are, and how to use and when to apply them. The old, threadbare charge, that a "meddlesome midwifery is bad," will have no terrors for us if we fully comprehend the situation, and are possessed of heroism, enough to discharge our whole duty, as in the sight of God, to a helpless, confiding mother and wife. But suppose we fail to discharge our duty as men, right here and now, are we prepared to measure the consequences? Sloughing of the vaginal tissues will in all probability follow; besides recto and vesico-vaginal fistula, metritis, peritonitis, etc., are to be reckoned as among the probable contingencies. These, and many other possible incidents, not forgetting that of death, immediate or remote, are among the results to be anticipated. Is it not reasonable, then, that we ought to interfere, to *prevent inflammation*, as soon as we are satisfied of the arrest of progress? As before stated, time is not a safe guide on which to rely in this hour of danger; we must be governed by the *symptoms*. Susceptibility is not alike in all these cases, nor is the degree of impaction nor the uterine contraction behind the same. In one case the parts involved may become intensely inflamed in a few hours, in another it may take ten or twelve hours, and we can only know when to interfere by close watching and careful discrimination.

It may be remarked that exhaustion and vaginal inflammation are sometimes present, or at least threatened, in the same case at the same time. This is a condition of extreme gravity, and ought not to be allowed to supervene. To avoid this and many other serious contingencies, which time will not permit us to enumerate, I believe that just as soon as the head is fairly arrested—makes no further advance, if only an hour has elapsed—and the parts begin to swell and become heated, ac-

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companied with *unnatural* suffering—agony would be a better term—we are called upon most urgently, in my opinion, to interfere.

I will allude to but another circumstance that once in a while arises, which demands the serious attention of the accoucher, and in which it is sometimes not left to his choice or inclination, as to whether or not he will resort to the use of instruments. I refer to threatened *laceration* of the womb and vaginal canal. The action of the womb suddenly becomes exceedingly violent, the passage of the child's head being obstructed or partially arrested by reason of a contracted pelvis, by reason of a bony tumor in the pelvic canal, or some other abnormal condition of the parts. The contractions come with increasing frequency, duration and power. We should know that the womb, when it once is thus angry, seldom ceases to be naughty until the obstruction is overcome, complete exhaustion is reached, or such an amount of damage is done to the tissues involved as will render them or the patient incapable of further effort, which are only among the less evils to be apprehended, when reckoned in connection with what is worse than either or all, namely, laceration. Here again naught but prompt and heroic instrumental interference promises exemption from the dangers incident to the situation. And here, too, is a condition, among many others that might be named, in which chloroform cannot be safely dispensed with. As a sedative, antispasmodic and anodyne, it is invaluable, both before and during delivery. Indeed, my faith in its use, in obstetrics, is so great, that I believe a labor that would otherwise sometimes be an unnatural one, may and is frequently converted into a natural labor, by the relaxation, rest, and exemption from pain which are induced by its inhalation. Permit me, from a somewhat extended experience in its use, to commend the practice to those whose fears or prejudices have prevented them from giving it a trial.

Many other conditions might be enumerated, in which the use of forceps and other obstetric appliances are indicated; but your intelligence and comprehension do not require this. I have deemed it best to refer to a few of the more prominent, because these are more frequently than others the shoals upon

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which the young, inexperienced or timid practitioner most is liable to be stranded, and because it is in cases of the kind referred to that he will, in his anxiety and doubt, consult, or be forced to consult, probably, with some old woman of the male persuasion, who, instead of encouraging him to go ahead and deliver without delay, will whisper in his ear with siren melody, *wait;* and, having fully made himself at home among the other old women, he will in all probability turn to his doubting junior, and, in tones of unmistakable import and owlish wisdom, undertake to damn the forceps, to damn those who use them, and to say it would be a useless piece of business to use them here. Thus the young practitioner's timidity is increased, the aversion of the laity is strengthened, and if at length the instruments are resorted to, it is done with visions of horror in the minds of all who witness the performance. The instruments are used, perhaps, not only bunglingly, but too late; the patient suffers from the sequalæ of exhaustion, impaction, etc., or probably dies; and the verdict rendered by a self constituted jury, composed of old women in and out of the profession, usually reads thus: The instruments were used and the patient died. I should like to suggest a little change in the phraseology, for the sake of variety and to relieve the monotony, and have it to read thus: The patient died because the doctor *waited*, or because he didn't get done waiting soon enough.

But, as against this homeopathic, do-nothing course of procedure, my belief is, and my course of practice has been, to save *from* danger is better and safer than to try to save *in* danger. It is a motto worthy of adoption in every department of life's work; it is a good one for the physician, the pratings of superstition and ignorance to the contrary notwithstanding.

PAOLA, May 17, 1875.

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ENCEPHALOID CANCER.

BY C. V. MOTTRAM, M. D.

A case of encephaloid cancer terminating fatally came under my observation since our last meeting, a brief report of which may not be uninteresting.

Some time in December, 1873, a sprightly, intelligent girl of fifteen was brought into my office by her physician, with a little swelling on the nose, at the lower edge of the nasal bones. She stated that in August preceding she had "bumped" her nose against a table-leaf. It had been but little sore, and she had forgotten all about it, when, in September, she again hurt it against the baby's head. Then followed a little swelling, which had remained, and for the past few days she thought it had increased a trifle. She was in excellent health, attending school. There was nothing *characteristic* about the swelling, and I diagnosed periostitis, chronic. After a few weeks I again saw the patient. The little thickening or swelling had now become truly formidable. The nose, from the end of the nasal bone upwards to the os frontis, had become very much enlarged and widened, especially directly between the eyes. The superior and middle turbinated bones were involved, the middle nearly filling the nostrils, and resembling polypi.

The parents were very anxious that something should be done surgically for the removal of the disease. Dr. Stuart then saw the case with me, and we decided that it was malignant, and our motto, "*Noli me tangere.*" The disease steadily progressed, the morbid growth being between the eyes. It did not extend backwards into the posterior nares, nor downwards, but little below the middle meatus. The eyes were forced forward and outward, so that on February 1, 1874 (when the photographs were taken which I show you), the space between them, measuring from the inner canthi, was three and one-half inches. The eyelids were now dark-purple. She had no pain, but a sense of distension or pressure. The pulse not disturbed.

Early in February she was taken to St. Louis, Missouri, for treatment, where she remained till June, then returned to Law-

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rence. The development was an immense tumor of the face, extending from the tip of the nose upwards nine inches, and from side to side about the same, and some three inches antero-posteriorly. Some fragments of bone have occasionally suppurated out, leaving deep caverns, which again filled up, and some of them healed entirely, leaving dark spots. The nasal passages were not closed; the eyes were forced entirely out of their sockets upon the temple; yet they were capable of receiving correct impressions when the elastic tumor was separated so that the object could be seen from the side. Another thing remarkable: the lachrymal ducts remained pervious and performed their natural functions, though imbedded in such a mass of diseased and disintegrated structure.

While in St. Louis, the left mammary gland was the seat of an immense abcess, which formed and opened spontaneously without pain. Her appetite and digestion were good throughout, till the last few days of her life, when diarrhea supervened. She invariably slept well. The parotid, submaxillary and lymphatic glands of the neck became enlarged late in the case. A tumor appeared between the first and second rib, near the sternum, about the size of a turkey's egg. When she returned from St. Louis the pulse was 140, and it ran up to 160 before she died. Her mental faculties were clear and undisturbed until the last few days, when there was some little delirium. Some time in August a cough came on, quite troublesome at night; was entirely relieved by an ordinary cough syrup. After this respiration remained somewhat hurried.

She died on the first of October. *Post mortem:* Present, Drs. Fuller, Wilder, Morse, Morris, Saunders and Prentiss. The tumor was made up apparently of elastic, fibrous tissue, and a yellow-white, brain-like substance, not close but elastic, with a feeling of fluctuation. It weighed five pounds. The nasal, turbinated and lachrymal bones, together with the vomer, had entirely disappeared. That portion of the superior maxillary forming the floor of the orbits was changed so as to appear like the tumor, and the handle of the scalpel could be easily pushed through into the antrum. The external plate of the os frontis was found softened and mostly absorbed away as high as the center of the forehead. The tumor near the

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sternum was found to communicate with the larger one in the cavity of the chest. The right lung was found completely filled and *solidified* with the cancerous deposit, no portion of it being normal. The left lung also had more than half of its structure filled with the same encephaloid deposit. The mesentery was found studded with hard deposits. A microscopical examination of sections of the tumor revealed the well-known cancer-cell in great profusion. They were abundant also in the lungs, in all the enlarged glands, mesentery, etc. Brain not examined.

What had the *injuries* to do with the development of the disease?

LAWRENCE, KANSAS, May, 1875.

RUPTURE OF PERINEUM.

BY J. H. STUART, M. D.

On the 25th of March, 1875, I was called, in consultation, to see Mrs. C., aged about 24 years, at full term, who had been suffering more or less during the previous night with the premonitory pains of labor. She was of medium hight, well developed, healthy (a primipara, I believe); the wife of a farmer, and, as the attending physician thought, was making fair progress toward delivery (the os dilating and dilatable), when suddenly, about 8 A. M., she was attacked by a violent convulsion, which was in pretty quick succession followed by two others. During an interval she had taken a dose of morphine, and had remained after the third convulsion comparatively quiet, and only partially clear in her mind, not comprehending very clearly her condition, till I saw her, between ten and eleven o'clock A. M., when, though able to converse a little, she was restless, with an anxious look, and an occasional twitching of the muscles of the arms and hands. I made an examination, and found the os well dilated, but observing the nervousness of the patient somewhat increased, and the child being yet high up, I did not examine for presentation, further than to

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observe that I felt the smooth, round outlines of the head, and supposed that it was at occiput. I had hardly withdrawn from the patient when she was suddenly attacked with a fearfully violent convulsion, that lasted so long as to cause great anxiety.

Before the onset of this last convulsion, I had boiled a little of the last urine she had voided, and found it albuminous, but not excessively so.

I thought best to deliver with forceps, quickly as possible. The application was a little tedious, though the blades finally slipped into place easily and were locked without difficulty. She was unconscious, with a heavy, stertorous breathing, yet chloroform was administered to quiet all jactitation. There had been no labor-pains observed since the first convulsion. Twice during traction the forceps slipped a little on the head of the child, but they were easily put in place again, and the delivery was somewhat retarded, there being no indication of expulsive effort. I was a little surprised that the head was so slow to perform the accustomed sweep about the pelvic bone, but instead pushing hard on the perineum. I now observed that the face was passing under the pelvic bone, and that I had locked the forceps about the posterior of the head, and did not see how I could avoid a bad rupture. While I was manipulating the forceps the accident actually occurred, involving the whole perineum, the anal sphincter, and a half-inch or more of the vagino-rectal wall. The child was still-born, and had, we thought, been dead some time. There yet seemed to be no contractile effort in the uterus, and hemorrhage was very abundant. The organ seemed to remain dilated, and the placenta was removed by expression, and hemorrhage was controlled by literally squeezing and holding it. This was continued till, by it and the application of cold water, contractions were induced.

But there was a grievious rent, and what should be done about it? It was thought most likely the patient might die anyway, and, besides, it was not certain it ought to be regretted if she did, rather than live out a life in so sad a plight. I determined, however, to make an effort for repair by "putting it up" immediately.

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Finding that the silk in my pocket-case was too tender for use, and not wishing to wait till I could send to town, I procured in the house a spool of black silk, and doubled it several times for sutures, four of which I introduced, wide of the rent and deep, tying them over two small sticks whittled out for quills. The operation was not difficult, and caused no pain, and seemed, under the circumstances, to be as readily performed as the prospect of benefit from it seemed slight. Her knees were tied together, and she was placed in position in bed, as she had been across the bed, with her hips near the edge, her legs being supported by two assistants.

In a few hours consciousness began to return, but the convulsions never any more. She was put on opium at intervals, to secure quietude generally and of the bowels in particular. It was intended to follow this plan for several days, but it was, imprudently as I thought, interrupted at the end of five days, and her bowels moved freely, which, however, caused her but little pain, and the opium was resumed for one week longer. I was somewhat put out at this, as I thought, untoward event, and feared the worst. The patient in other respects did well, except having painful passages of muddy, stinking urine.

The stitches were removed on the ninth or tenth day. She lay on her side, took her opium, and had her bowels move on the thirteenth day, without any trouble; then omitted the opium, took a little tonic, ate what she liked, and at the end of five weeks did her own work, considered herself well, and now has a thick, firm, strong perineum, all well cicatrized.

LAWRENCE, KAS., May, 1875.

EXSECTION OF HEAD OF THE HUMERUS, &c.

BY C. C. FURLEY, M. D.

It is not the purpose in this paper to make claim to originality, or to contribute a long and a tedious article in describing an operation common to American surgery, and not uncommon in its result. Intricate and doubtful as the decis-

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ion between resection and amputation in emergencies must be, there are times when the surgeon must discard the unnecessary fear of pyemia, which seems to be the source of much hesitation in regard to these operations, exercising a justifiable terror to the operator. This, however, with proper drainage, must be looked upon as a needless alarm, and resort to the more conservative methods, as the more convenient and safer for the patient, while it gives a glory to modern surgery by its success. Certain it is that many amputations might be avoided, that with care, patience, and good subsequent management would render efficient service, with a less rate of mortality.

The case to be here described was that of a healthy man, aged thirty-two years, who, on the night of June 3, 1874, was shot in a melee by a rifle ball, which entered the left arm about the insertion of the deltoid muscle, ranging upward, and lodging under the scapula of the same side, from beneath the inferior angle of which it was subsequently extracted. The bone was severely comminuted, and during the operation sixteen fragments were taken out, the longest splinter of which was four and a half inches long. The operation was made by a straight incision of six inches through the deltoid and upper edge of biceps muscles, separating the periosteum with the aid of a rounded chisel, and leaving a continuous strip joining the two ends of bone. The attachments of the deltoid, latissimus dorsi and other muscles were detached. The bone being pretty thoroughly splintered up, was sawed off just below the surgical neck, and the lower fragment five inches below. The wound was then closed by the ordinary suture, a pledget of charpie put in the pendant extremity for drainage, and union by first intention, promoted for the upper part of the incision. An irrigating trough kept cold water dropping on the wounded arm, and a circular splint of zinc, into which eylets were soldered, answered the double purpose of preventing mobility, and, by tying together, keeping the surfaces in apposition without the aid of adhesive strips. The zinc was easily spread open without disturbing the arm, for dressing; and to this constant splint the success of the excision appears greatly to be due.

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The patient, John Stuart, still a resident of our city, shows, as the result of this operation, at this date, one year afterward, that there is but one inch shortening, and that the arm is in no part of more than one inch and one eighth less in circumference than its fellow, being almost as useful as originally, with every motion complete. The deltoid muscle, the insertion of which was detached, was slightly bunched, but has evident power in its new position.

It would be useless to call your attention to this case were there not something to point to out of routine. This is found in the circular splint of zinc, to which the attention of the profession is called for its adaptability and easy application, its malleability and cheapness.

WICHITA, KANSAS.

VALEDICTORY ADDRESS.

BY J. S. REDFIELD, M. D., OF FORT SCOTT.

GENTLEMEN: In early time the thinkers worked with talkers for the common object of benefiting mankind. But after many years of discord the thinkers gradually withdrew, believing that they could better serve the human race by the absorption and study of phenomena. The thinkers have ever since been secretly watching the progress of events, and those undercurrents which were hidden from the masses, and in their own way quietly preparing mankind for those important changes we are now and then called upon to witness. To them it has been revealed who universally, even in the midst of apparent confusion, order and regularity reign; how even accidents, cholera and comets are all subject to the unerring laws of nature. It is no wonder that we hear such constant lamentations about failures of schemes and systems, when we find them taken in hand by empirical reformers, the natural tendency of whose minds is to deal with social matters in a narrow and piecemeal way, and who would in all probability, were they medical practitioners, treat small-pox in detail by cut-

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ting out the pustules! Advance in science can only be made by the close and thinking observer. Too many of us, no doubt, let golden opportunities pass, when by observation and thought we might have made discoveries that would have been invaluable to the profession and a blessing to mankind. It is true that we have text-books and laws laid down for our government, but it is also true that some of these laws, like the civil code, may be amended and improved. Who is there among us to-day who would dare accept as his standard the practice of fifty years ago?

Many of us think we are well up in everything that is required to make good physicians and surgeons; but we must recognize the fact that there is much for us yet to learn, and it is a duty that we owe to ourselves and our profession that we should embrace every opportunity to learn it at the very earliest possible moment. We have a grave duty to perform, not unlike those in the profession who have gone before us. Charges are constantly going on, though fewer perhaps in the *materia medica* than in any other science. Astronomy struggled through many ages before the dawn of light smiled upon it, though it is now perhaps better understood than any other science. Geology has made rapid strides on the high road toward fame; yet it is in its infancy, and many generations must come and go ere it arrives at that advanced stage that we now find the science of astronomy. Geology does not pretend to go back to the creation of the world, or concern itself about its primitive state; but it does concern itself with the changes it sees going on in it now. We see everywhere, and along every coast-line, the sea moving against the land, and nearly everywhere overcoming it; wearing and eating it down, and battering it to pieces; grinding those pieces to powder; carrying that powder away and spreading it out over its own bottom by the continued effect of the tides and currents. Look at the chalk cliffs of England, which once, no doubt, extended across the English Channel to the similar cliffs on the French coast. But we do not see chalk cliffs wearing away either on the eastern or the western coast of America; and why? Simply because we have no chalk cliffs to be worn away. The action of the waves of the ocean is the same the

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world over, but the substances with which they come in contact vary greatly. Hence, while they may cut away the chalk cliffs along the English and French coasts, they may heave up debris and earthy matter upon other shores. We all know that to diagnose a disease in London is the same as to diagnose a disease in New York; or for that matter, the same in any other portion of the world; yet I imagine that the members I see before me here to-day would have better success in their profession in Kansas than they would in the States of Louisiana or Minnesota. While many of the diseases common in this State prevail in those States, they are of a different type, and require different treatment. The well-read physician of New Orleans might treat a case of yellow fever more successfully than any member of this Association; yet when it comes to a case of pneumonia, intermittent or remittent fever, I imagine almost any of us could treat them with equal success with the best men in those States. We all study the same books, and receive instructions from the same professors; but we do not all practice upon the same subjects, nor live in the same climate.

And now let us look back over the history of our Society, and consider whether we have done our duty since its organization. Sixteen years ago the first session of the Kansas Medical Society was held in Lawrence, which at that time was a mere village. It has since grown into a beautiful city; but can we truthfully say that our society has kept pace with the growth of Lawrence and the balance of the State? Kansas then contained but a few thousand people; now it contains more than five hundred thousand, who look to us for medical aid in their hours of sickness and distress. Are we worthy of the faith and confidence they repose in us? Do we really merit the patronage the people bestow upon us? The founders of our society—many of whom, thanks to the beneficence of a kind Providence, are still among us—intended to organize an association that would benefit every physician who became a member of it. It was to be a place where an exchange of ideas could be turned to the best account; where physicians could become acquainted with each other, and thus cultivate a friendship that would not only be beneficial to the association,

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but would grow with time, and shed a halo of sunshine around the declining years of the older members; while to the new beginner in this, the noblest as well as the most responsible science known to the world, it would ever be a school of information and a source of pleasure. Here the learned and aged members could, in a terse and clear manner, impart their lives' experience to the association which could be taken up by the junior members and turned to good account, for there is no physician, however well read, but can learn something from those who have grown gray in the service. The past history of our Association has not, it is true, come up to that standard laid down by its founders, yet it has accomplished much, and its future is brighter than ever before. The day-dreams of our childhood are seldom, if ever, realized; hence we should not feel discouraged if we meet with some drawbacks, but add a little more energy and a little more perseverance, and we will finally arrive at that goal which its founders saw in the dim distance.

And now, gentlemen, let me thank you for your kindness and courtesy during the brief period that I have occupied the chair to which you called me; I retire from it with the earnest hope of meeting you all again at each annual session for many years to come.

PROCEEDINGS OF THE KANSAS MEDICAL SOCIETY.

LEAVENWORTH, KAS., May 10, 1876.

The Kansas Medical Society met in the rooms of the Board of Education, in Leavenworth, May 10th, 1876, at 2 o'clock P. M., and was called to order by the president, Dr. T. Sinks.

On motion of Dr. Schenck, the reading of the minutes of the last meeting was dispensed with.

Dr. Brock moved to suspend the order of business, so as to permit the president's address immediately after the roll call. Carried.

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The following members were present during the session, viz: Drs. P. Burns, J. W. Brock, W. W. Cochrane, J. J. Crook, W. B. Carpenter, J. M. Carpenter, C. C. Furley, W. Gough, H. O. Hannawalt, S. W. Jones, H. K. Kennedy, J. M. Linley, G. L. Lewis, C. V. Mottram, S. F. Neely, H. S. Roberts, J. Robinson, T. Sinks, D. W. Stormont, C. C. Shoyer, J. H. Stuart, W. M. Shean, S. E. Sheldon, W. L. Schenck, E. W. Seymour, F. M. Stringfield, M. S. Thomas, D. W. Thomas, A. C. Van Duyn, J. H. Van Eman, and J. L. Wever.

Dr. Brock moved that Drs. S. S. Todd, A. B. Taylor, Geo. Halley, T. B. Lester and I. B. Woodson, of Kansas City; J. T. Wilson, of Weston; and F. M. Johnson, of Platte City—all of whom were present—be elected honorary members of this society. Carried unanimously.

Dr. Tiffin Sinks, the president, then read his address, which was referred to the committee on publication.

On motion of Dr. Stuart, the recommendations in the president's address were referred to two committees, viz., one on registration and one on location. The president appointed as the committee on registration, Drs. Schenck, D. W. Thomas, J. M. Carpenter, J. Robinson, and J. H. Stuart. The committee on location consists of Drs. S. F. Neely, C. V. Mottram, W. W. Cochrane, W. M. Shean and H. S. Roberts.

Drs. Roberts, Furley, and Van Eman were appointed to fill vacancies on the board of censors.

The following names were referred to the board of censors for membership, reported upon favorably, elected, and signed the constitution, viz.: Drs. Victor Biart, of Leavenworth, John H. Hammond, of Solomon City; N. C. Wells, of Topeka; Joseph Ganghofer, of Leavenworth; E. B. Slosson, of Sabetha; B. F. Johnson, of Mount Pleasant; and W. F. Osborn, of Burlington.

The secretary reported that charges had been filed in his office, by the Shawnee County Medical Society, against Dr. P. I. Mulvane, of Topeka, for violating section 1 of article 4, and section 3 of article 1, and sections 1 to 4 of article 5, in chapter 2 of the Code of Ethics; and that he had notified Dr. Mulvane of the nature of these charges, and that they would be acted on at this meeting.

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On motion, the charges and specifications were referred to the board of censors.

The secretary read a paper on Carbolic Acid, by Dr. H. O. Hannawalt, which was referred to the committee on publication.

The treasurer submitted his annual report, as follows:

W. W. COCHRANE, Treasurer,

In account with the Kansas Medical Society.

Dr.

To balance on hand last report	$124 00
To amount received since	86 00
Total	$210 00

1875.	*Cr.*	
May 10.—Paid the Secretary for postage, etc,		$16 00
Dec. 13.—Paid for publishing Transactions		112 00
		$128 00
Balance on hand		82 00
Total		$210 00

W. W. COCHRANE, *Treasurer.*

The report was referred to an auditing committee, consisting of Drs. C. C. Shoyer, S. W. Jones and M. S. Thomas. The committee subsequently reported the account correct.

Dr. Sinks offered the following amendment to the by-laws, which was adopted, viz.:

Resolved, That the by-laws be amended as follows:

First, By omitting from article 2, section 2, the following: "At the close of his term of office."

Second, By inserting "address of the president" as No. 3, in the order of business.

Dr. Roberts reported a case of paralysis, which was referred to the committee on publication.

On motion of Dr. Wever, the society adjourned, to meet at 7:30 o'clock this evening.

EVENING SESSION.

The society met; the president, Mr. Sinks, in the chair.

The president appointed the following as the committee on nominations, viz.: Drs. J. L. Wever, W. W. Cochrane, C. C. Furley, H. S. Roberts and H. K. Kennedy.

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The committee on the subject of registration submitted the following report:

The committee to whom was referred the matter of registration suggested in the president's address, beg leave to report that it meets their hearty approval, and recommend the appointment of a suitable committee of seven to carry out the suggestion.

W. L. SCHENCK.
D. W. THOMAS.
J. M. CARPENTER.
J. ROBINSON.
J. H. STUART.

On motion of Dr. Brock, the report was adopted.

Dr. Morris reported a case of compound comminuted fracture of the tibia, which was read by the secretary, and referred to the committee on publication.

The board of censors submitted the following report, viz.:

We find the charges and specifications in the case of Dr. P. I. Mulvane, of Topeka, to be true, and recommend that the said Dr. P. I. Mulvane be expelled from this society.

J. W. BROCK.
H. S. ROBERTS.
C. V. MOTTRAM.
C. C. FURLEY.
J. H. VAN EMAN.

After reading the evidence, on motion of Dr. Schenck, the report was adopted, and Dr. Mulvane was declared expelled from the society.

The president appointed the following committee on a registration law, viz.: Drs. D. W. Stormont, W. L. Schenck, D. W. Thomas, J. H. Stuart and J. M. Carpenter.

Dr. Todd, of Kansas City, reported a successful case of ovariotomy, and exhibited the tumor for the inspection of the society.

On motion of Dr. Cochrane, Dr. Todd was requested to furnish this report to the committee on publication.

Dr. Stuart read the report from the committee on practical medicine, which was referred to the committee on publication.

On motion of Dr. Schenck, the society adjourned to 9 o'clock to-morrow morning.

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MORNING SESSION.

LEAVENWORTH, KAS., Thursday, May 11.

The society met as per adjournment, the president in the chair.

Dr. Stuart presented a bill for $8 for postage, etc., and the secretary a bill for $18 for postage, stationery and expressage.

On motion of Dr. Thomas, the treasurer was instructed to pay these bills.

Dr. Mottram reported a case of ruptured perineum. Referred to the committee on publication.

Dr. Mottram read a paper on rubella, which was referred to the committee on publication.

Dr. Mottram reported two cases of old dislocations of the head of the radius, which was referred to the committee on publication.

The committee on nominations submitted the following report:

OFFICERS FOR THE ENSUING YEAR.

President.—Dr. H. S. Roberts, of Manhattan.

1st Vice-President.—Dr. W. L. Schenck, of Osage City.

2d Vice-President.—Dr. C. C. Furley. of Wichita.

Secretary.—Dr. D. W. Stormont, of Topeka.

Assistant Secretary.—Dr. Victor Biart, of Leavenworth.

Treasurer.—Dr. W. W. Cochrane, of Atchison.

Board of Censors.—Drs. J. L. Wever, W. Gough, J. H. Stuart, J. Robinson and G. W. Haldeman.

REGULAR COMMITTEES.

Practical Medicine.—Drs. T. Sinks, H. O. Hannawalt, J. T. B. Gephart, J. M. Carpenter and W. B. Gibson.

Surgery.—Drs. C. V. Mottram, C. C. Furley, D. C. Jones, G. L. Lewis and M. S. Thomas.

Obstetrics.—Drs. C. C. Shoyer, J. Robinson, W. W. Cochrane, J. S. Laurence J. S. Redfield.

Materia Medica.—Drs. W. M. Shean, W. B. Carpenter, G. T. Brown, H. P. Woodward and J. M. Linley.

SPECIAL COMMITTEES.

Medical Statistics.—Dr. J. H. Stuart.

Recent Advances in Physiology.—Dr. R. Morris.

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Recent Advances in Chemistry.—Dr. F. M. Stringfield.
Recent Advances in Hygiene.—Dr. H. P. Woodward.
Infantile Diseases.—Dr. D. W. Thomas.
Indigenous Remedies.—Dr. J. J. Crook.
Concentrated Remedies.—Dr. W. L. Schenck.
Venereal Diseases.—Dr. W. W. Cochrane.
Nervous Diseases.—Dr. V. Biart.
Typho-Malarial Fever.—Dr. J. H. Van Eman.
Gynecology.—Dr. S. F. Neely.
Antiseptic Surgery—Dr. J. W. Brock.
Syphilis Ingenita.—Dr. E. B. Slosson.
Ozone.—Dr. H. S. Roberts.
Anesthetics.—Dr. A. C. Van Duyn.
Capillary Bronchitis.—Dr. J. L. Wever.
Medical Electricity.—Dr. J. M. Linley.
Poisoned Wounds.—Dr. C. C. Furley.
Chronic Catarrh.—Dr. H. K. Kennedy.

Delegates to the American Medical Association for 1877.—Drs. D. W. Stormont, D. W. Thomas, S. E. Sheldon, W. W. Cochrane, J. S. Redfield, H. S. Roberts, A. H. Lanphere, J. H. Stuart, J. S. Laurence and W. L. Schenck.

Delegates to the International Medical Congress.—Drs. H. K. Kennedy, T. Sinks, S. F. Neely, C. C. Shoyer, D. C. Jones, J. M. Linley, C. C. Furley, S. W. Jones, J. W. Brock and A. Newman.

We recommend that the secretary be authorized to fill all vacancies in these delegations.

Time of holding next annual meeting, second Wednesday in May, 1877. We make no recommendation as to the place of meeting, it having been referred to a special committee.

On motion of Dr. Wever, the report was adopted, and the officers recommended were elected.

On motion of Dr. Thomas, Surgeons Perrin and Wright, of Fort Leavenworth, were invited to the privileges of the floor.

Dr. Van Eman read the report of the committee on surgery, which was referred to the committee on publication.

Dr. Roberts read his report on hydrophobia, which was referred to the committee on publication.

Dr. Neely presented the report from the special committee on permanent location, viz.:

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We find that article 4 of our constitution provides that the time and place of meeting shall be designated from year to year, as the society may elect. We therefore recommend—

1st, That article 4 of the constitution be so amended as to provide for a permanent location; the place to be designated by the society at its next annual meeting.

2d, That the next annual meeting of the society, be held at Lawrence.

After some discussion, and the offering of various amendments—which were all voted down—the first recommendation was lost, and the second recommendation was adopted.

Dr. Neely submitted his report on nervous diseases, which was referred to the committee on publication.

The president appointed as a committee of arrangements for the next meeting all those members of the society who reside in Lawrence; and Drs. D. W. Stormont, D. W. Thomas and J. H. Stuart, as the committee on publication.

On motion of Dr. Wever, the treasurer was instructed to notify delinquent members of the amounts due from them, and report those in arrears at the next meeting.

Dr. Furley moved to amend section 1 of article 5 of the by-laws, by changing "one dollar dues" to "two dollars dues." Carried.

On motion of Dr. Schenck, a vote of thanks was tendered to Dr. Sinks, the president; to the committee of arrangements, and to the various railroads, for favors.

On motion, the society adjourned, to meet in Lawrence on the second Wednesday in May, 1877.

D. W. STORMONT, *Secretary.*

ADDRESS OF THE PRESIDENT.

TIFFIN SINKS, M. D., LEAVENWORTH, KANSAS.

GENTLEMEN:—The centennial year in our nation's history marks the decennial period in the working history of our State society. As citizens of this great republic, we rejoice in the marvelous progress it has made in numbers, wealth, resources,

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the arts and the sciences, and also in the influence exerted for freedom upon all the nations of the globe; while as a profession we may justly feel proud of the contributions made by our confreres to the advancement of the science and art of medicine.

It is unnecessary to even mention the conspicuous names of Americans that adorn the pages of medical history. They are familiar to us all, and are a part of our common heritage. What we are and may become we owe largely to the past, and our debt due the future is to emulate the example and achievements of our illustrious predecessors.

Our meeting here to-day, as I take it, is an earnest of our determination in this regard, and of a desire at least, to leave, however faintly, our "footprints in the sands of time."

As before remarked, this is our tenth meeting as a working organization, and as one of its originators I indulge a pardonable pride in its growth and prosperity, as well as a hope that its future may attain to what its youth so fairly promises. The honorable position to which you have elected me, and my knowledge of the society's history, warrants an indulgence in some suggestions in reference to the best method of attaining to the fullest benefits of our association.

Two purposes are subserved by our organization. First, a social one, which involves mutual acquaintance and a cultivation of prosessional etiquette; and second, an increase of knowledge by an interchange of experiences. To these may be added a third one, which is incidental to all organizations, viz.: a power which attaches to numbers by a union of purpose and effort. In every social organization it is the duty of each individual member to contribute something toward the entertainment or instruction of his or her associates, and as a rule the measure of our estimate of each is in pretty strict accord with the amount contributed.

Following the lead of other State medical societies, we have depended chiefly for contributions upon committees appointed at a previous meeting. Very frequently the subjects assigned them were those with which they were the least familiar, and as a necessary consequence little more resulted than compilations from standard authorities. Furthermore, the absence of

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large hospitals in our State, the difficulties we encounter in our attempts to obtain the privilege of making autopsies, the necessity that exists for our being physician, surgeon and accoucheur, and frequently nurse, almost absolutely precludes the possibility of attaining to pre eminence in any particular department of our calling. We therefore feel a hesitancy in presenting essays upon the subjects assigned us, as we are painfully aware that they will necessarily be imperfect and unsatisfactory. However, almost every one will, in the course of a year, observe, or discover, or experience, something novel, or peculiar, or specially interesting, with which he can swell the general fund. While we need not dispense entirely with our present system of appointing committees upon special branches and subjects, it occurs to me that if each member would come prepared to report, verbally or in writing, some observation or discovery, or present some pathological specimen, the purposes of our organization would be better subserved, and the interest of our meetings very materially enhanced.

The question of the permanent location of our society should receive our earnest and thoughtful consideration. The system of itinerancy which has obtained thus far in its history, is supposed to enlist a greater number of physicans in its service, and to scatter its influence over a large area of territory. On the other hand, it effectually precludes the possibility of the collection of a library and a museum. While it may scatter its benefits, it certainly dissipates its treasures. Before the age of steam locomotion, the migratory system was undoubtedly the best as well as the most equitable one; but now that numerous lines of railroad have so cheapened and shortened travel, I seriously question the propriety of maintaining the old system.

It is much to be regretted that our Legislatures have thus far refused to enact a registration law. We therefore have no available method of obtaining reliable statistics of births, deaths, prevalent diseases, and the rate of mortality attaching to each. The importance of such a law in the interest of State medicine no one present will question, but just how to procure its enactment is a problem difficult of solution. It offers nothing to

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us, as a profession, in the way of financial remuneration, and therefore none are willing to spend their time and money in what is commonly known as "log-rolling" at the capital. I would suggest the appointment of a committee to draft a bill and append to it the arguments in its behalf. Let a sufficient number be printed at the expense of this society, and a copy be furnished to each member, with the request that he will present it to the members of the incoming Legislature resident in his locality, and request their influence in procuring its enactment. Perhaps, by persistent importunity, we may succeed in this laudable endeavor.

It is a gratifying fact that *pari passu* with the growth and development of our country in every other respect, the standard of requirement is being advanced in all our leading medical schools. Thoroughness is not a marked characteristic of the American people. The wide extent of our domain, and the undeveloped resources of a country unparalleled in natural wealth, rather invite diffusion and diversity. But as artificial wealth increases and our population centralizes, facilities for acquiring knowledge increase, and a commendable emulation begets a higher standard of attainment. As a society we have little to do with this much-mooted subject of education, but as individuals we can exercise an influence in the right direction; first, by refusing to accept students who do not possess a good English education; and second, by inducing them under our tutelage to attend medical schools of the first class. Quackery flourishes most where the professional standard is the least exalted. An accomplished scholar remarks that "laws and customs, from which the animating spirit of national opinion and sentiment has passed, are but the cenotaphs of dead forms embalmed in vain." Unless we are ourselves animated by noble purposes, it is folly to clamor against those who indulge in vicious practices; for the world ultimately forms a pretty correct opinion of our merits, and I sometimes think we are rather rated above than below our true value.

All the laws on the statute books in relation to the suppression of quackery are not worth the paper upon which they are printed, for the reason that they cannot or will not be enforced. The awe of death and the innate superstition of the

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human mind will ever induce the weak and the ignorant to listen to magnificent promises, and hope for marvelous effects. It is useless to inform a drowning man that a mere infinitesimal straw will not save him from sinking; he will grasp at it all the same. The true law in reference to this subject is the unwritten one which governs our own conduct.

> "The fault, dear Brutus, is not in our stars,
> But in ourselves, that we are underlings."

By devotion to the best interests and highest purposes of our profession, and a strict maintenance of professional etiquette in our intercourse with each other, we will compel a recognition of our abilities, and a respect for our opinions. What becomes of those who choose to resort to the "tricks of the trade" need not concern us, although we can safely predict ultimate disaster, whatever may be their present success. I am well aware that in the struggle for existence, with gaunt necessity gnawing at the foundations of our best resolves, and the gilded sweets of temptation presenting their allurements on every side, it is difficult to preserve our moral equilibrium, and patiently await the tedious processes of dilatory time. But in our struggles it is well to bear in remembrance that the cultured and refined physician occupies a prominent social position in every community in Christendom, such as mere wealth and titles cannot command. As there is no higher attainment, this should be the object of our hopes and the Mecca of our ambition. "And when the vigor, the vivacity, and the bloom of youth shall fade; when the train of graces that now sport around us—health, vigor and joy—shall vanish like the phantoms of a dream, and leave nothing behind but a mournful remembrance that they once were ours," the happy consciousness of a life spent in the study and practice of a noble profession will fill our minds with a divine serenity, and when we sink into the repose of that mysterious night which awaits us all, will peacefully waft our spirits over the dark river, to the bright realms of the everlasting.

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OVARIOTOMY.

BY S. S. TODD, M. D.,

[Professor of Obstetrics and Diseases of Women in the Kansas City College of Physicians and Surgeons.]

Mrs. M. E. B., of Carroll county, Mo., was brought to me by her husband, for treatment, March 17, 1876.

Examination.—The patient is twenty-nine years of age, has been married thirteen years, and has never been pregnant. She is of slender figure, much emaciated; complexion sallow, skin dry and cool. The abdomen is enormously and uniformly distended, with dullness on percussion everwhere except deep in the lumbar regions; abdominal walls thin, and fluctuation very distinct at all points save in the left anterior hypochondriac and lumbar regions. The abdominal tumor is only slightly, if at all, movable.

An examination, per vaginam, with the finger, gives no evidence of fluctuation; the uterus is high, and deflected to the left; quite mobile, and, on passage of the sound, gives a depth of cavity of three inches. The patient has suffered from dysmenorrhœa from the first appearance of the catamenia, at the age of fifteen years, to the present time; otherwise, there has been no variation from health in this respect, except an occasional prolongation of the interval to five or six weeks. A catamenial period has just passed. There has been some incontinence of urine, but no disuria, and the urine, though not critically examined, appears to be normal in quantity and quality. The tongue is clean, appetite good, no thirst, some flatulence, and the bowels regular. Breathing is much impeded, but there is no cough, no expectoration; she sleeps well, and is cheerful and hopeful.

The history of the case shows that the lady has lived a quiet, country life; has had ague occasionally during the past five or six years, but otherwise has enjoyed good health up to the time (five years ago) when abdominal fullness was first noticed, at which time she believed herself to be pregnant. She does not remember that this enlargement was greater on one side than on the other. Gradually the abdominal cavity

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became distended, through a period of five years, occasioning no pain, however, and little inconvenience of any sort, except that caused during the past eighteen months by mechanical pressure and impaired function of the viscera involved. There has never been any abdominal tenderness, no anasarca, and the patient has never been tapped. For the past two years she has been treated with diuretics and hydrogogue cathartics, under the impression that she was suffering from ordinary dropsy. A few drachms of the contents of the sac were removed by aspiration, and the liquid found to be viscid and highly albuminous. The disease was pronounced to be ovarian—probably a nonocyst, with adhesions, and coexisting hypertrophy of the spleen.

Operation. — The patent having undergone preparatory treatment for a few days, on April 3d the operation was performed, Drs. Taylor, Lester, Schauffler and Porter assisting. Chloroform was administered, and an exploratory incision of one inch and a half having given assurance of the presence of an ovarian sac, and the possibility of its removal, the incision was lengthened to seven inches. On introducing the hand now it was found that the entire extent of the tumor in front was adherent by innumerable small bands, and immovably fixed to the front and sides of the abdominal walls. The most of these, however, yielded readily to the fingers, and without much bleeding. The sac having been partly emptied by the removal of about three gallons of amber-colored liquid, of the consistence of thin molasses, trocar was removed, and the opening into the sac tied with a stout ligature. On attempting to drag the now-diminished bulk of the tumor through the abdominal wound, it was found to be strongly adherent to the left abdominal wall, and behind, by a band three or four inches in width, and of considerable thickness, springing from a point of the sac opposite to what was afterwards ascertained to be a mass of small cysts contained in the parent cyst. This was divided with the scissors, and the sac rolled out of its bed. The tumor was quite vascular on its sides, and behind, and the pedicle seven inches broad, and very short. Each half of the pedicle was tied very tightly with a strong silk ligature, one end cut short, and the remain-

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ing end of each ligature brought out at the lower angle of the incision. The sac was now cut away, and the stump dropped back into its bed. Not a drop of the fluid had entered the peritoneal cavity. The other ovary, as well as the uterus, was found to be healthy, as was also the *spleen* and other abdominal viscera. No bleeding occurred from the pedicle stump, but a considerable oozing continued from ruptured vessels, requiring the wound to be kept open for half an hour or more. The only bleeding vessel demanding ligation, however, was in the wound of incision. After the lapse of a considerable time, it being found unsafe to continue anesthesia longer, the cavity was made as clean and dry as possible, and, though oozing still kept up to some extent, the abdominal wound was closed, with thirteen silver sutures. It was clearly apparent, however, that drainage must be provided for, and before closing the opening completely, a Thomas drainage tude was inserted deeply into the recto-uterine cul de sac, and brought out beside the ligatures, in the lower part of the wound.

The tumor, on examination, proved to be polycystic. The quantity of fluid contained in the main cyst was thirty-six pints, equal to thirty-eight pounds. It contained also within it a polycystic mass weighing two pounds, which with the weight of the sac, two pounds more, made the weight of the entire mass forty-two pounds. The polycystic mass spoken of was composed of from fifteen to twenty small cysts, varying in size from a pigeon's to a goose's egg, filled with a dense colored substance of extreme viscidity. Two or three of the largest of these contained within them smaller cysts of the third order. This mass was situated on the upper and left laternal aspect of the tumor, projecting inwards, and was that which, before an opening was made, had been mistaken for an hypertrophy of the spleen.

The patient rallied well in an hour after the conclusion of the operation, but suffered much from nausea during the night succeeding the operation, and for three or four days thereafter—due no doubt in part to the anesthetic, but mainly to opium, of which unfortunately she had great intolerance, but which had been freely used in conjunction with quinia for the first three days following the operation. The opium having

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been suspended, and the patient being allowed pounded ice' iced champagne, iced soda-water, etc., at will, the nausea ceased, and she was able to take food with relish on the fourth day. On the morning of the second day three or four ounces of bloody serum escaped through the drainage tube. From this time to the twelfth day, at which time the drainage tube was wholly withdrawn, the peritoneal cavity was thoroughly washed out twice a day through this tube with a weak solution of carbolic acid and common salt, in water at blood-heat. From being sero-sanguinolent, at the first, the discharge through the tube soon became purulent, and so continued in constantly-diminishing quantity till the ligatures of the pedicle had come away, when the opening left after removal of the drainage tube soon closed.

On the fourth day after the operation the catamenia appeared and lasted two days. On the eleventh day I removed four of the sutures, and on the twelfth day the remainder, when the abdominal incision was found to be firmly united throughout. On the nineteenth day I had evidence of perforation of the rectum;—intestinal gases escaped through the opening for drainage, and pus passed per anum, and so continued at intervals for three or four weeks longer. The patient's appetite and strength continued to improve, and on the fifty-first day she left for her home. Her recovery is satisfactory and complete.

The desperate character of this case will be apparent when we say that after the fifth there was no succeeding day up to the close of the sixth week when temperature fell below 100°, or the pulse below 110, or when respiration fell short of 21 inspirations to the minute. Even so late as the thirty-eighth day—from flatulence, partly, I think, at this time—the temperature rose in the afternoon to 104½°, pulse 136, and respiration 30. The average temperature from the fifth to the forty-second day, taken at 6 P. M., was 102⅚°, and the average pulse for the same period 122! This protracted exaltation of temperature, pulse and respiration was caused, no doubt, by a circumscribed peritonitis, a slight degree of septicæmia, and exhaustion from long-continued purulent discharge incident to the separation of the ligatures of the pedicle.

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There can, I think, be little doubt that this patient never would have recovered unless *some* method of drainage had been provided, and even this would probably not have been sufficient unless the means of drainage had also permitted the cleansing of the peritoneal cavity with antiseptic washes. Reduction of temperature and frequency of the pulse, as a result of these intra-peritoneal washings, was fully exemplified in the management of this case. A fall in the mercury of from one-half to one degree, and of the pulse from five to ten beats per minute, within half an hour, was observed to occur on several occasions. The power of a combination of quinia and salicylic acid in the same way was no less marked. From the fourth to the twelfth day the patient took daily fifteen grains each of quinia and salicylic acid, in five-grain doses each, and a fall of temperature and pulse invariably followed close upon their administration.

KANSAS CITY, MO., July 24, 1876.

REPORT TO KANSAS STATE MEDICAL SOCIETY.

BY J. H. STUART, A. M., M. D.

[Chairman of Committee on Practical Medicine, May, 1876.]

Says Liebermeister in Ziemssen's Cyclopedia: "The history of disease in a country forms an important part in the history of medicine; without it we find it impossible to understand the history of political science or civilization. These great diseases have often destroyed the army of a conqueror; they have been the means of removing whole races of mankind from the earth; they have often given the death-blow to an advanced civilization, or have left a strange and enduring impress on the intellectual life of great nations. * * * And now, at the present day, the mortality from infectious diseases forms an extraordinarily large portion of the whole mortality. All the other mighty casualties of nature, such as earthquakes, volcanic eruptions, mountain avalanches, hurricanes, inundations by sea, have never in the history of the world, even

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approximately, destroyed as many human lives as a single ordinarily extensive epidemic."

Seeing how small-pox, cholera, typhus fever and other diseases have been robbed of the virulence and terror, may we not expect that they may yet be made to disappear from the earth? And though the suggestion may seem idle, yet we are warranted by the wonderful discoveries that are almost daily being made, in expecting the mitigation, if not the eradication, of all those contagious affections, that, like the dragon of Apocalypse, wait to devour the children as soon as they are born. But to bring all this about a great deal of intelligent, persevering effort must be put forth.

The contributions of Drs. Clarke and Gross on "A Century of American Medicine," in the *American Journal of Medical Science*, must convey to every reader an honest sense of pride in being a member of such a fraternity. One encouraging feature of these papers, as well as the history of medicine, is, that a large number of the suggestions and discoveries that are now an integral part of the science, were made by the faithful, devoted practitioner, in comparative obscurity, till "he awoke some morning and found himself famous." Labor is the cost of distinction. Diligence and industry seldom go unrewarded. To have done nothing in life beyond levying contributions to our own selfish gratifications is to come short of a noble life.

The following circular and accompanying questions were sent into every county in the State, and to the older and more populous counties several copies were distributed. About forty were filled out and returned, bringing reports from twenty-four counties distributed over the several largest settled sections of the State. To those physicians who have so kindly and satisfactorily responded, I desire to return my thanks and to express my obligations for their valuable assistance.

The questions are not as definite as it could have been desired to ask, but they were believed to be quite as much so as physicians generally could be expected to answer from memory and general impressions, as these would be the sources from which replies, in the main, must be drawn. The several questions will form so many divisions of this paper. First, the cor-

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respondence will be tabulated as well as it can be, and afterwards such extracts will be given as seem to be pertinent or especially valuable. At the end of the report will be found an appendix on Ozone, consisting in the main of extracts from a paper by Prof. Wm. K. Kedzie, of the State Agricultural College.

While the information contained in the replies to the questions is not of that definite, positive character in which implicit reliance can only be placed, yet they are not without their weight, and I have judged them worthy of presentation to this intelligent body:

[CIRCULAR.]

LAWRENCE, KANSAS, March 24, 1876.

DEAR DOCTOR: To collect items of history is the marked feature of the Centennial year. It is believed to be very important to make some record of the history of medicine in Kansas. The substance of your answers to the following questions will be embodied in a report to the State Medical Society, in May next, and by it preserved for reference.

1. How long have you practiced medicine in Kansas?
2. What epidemics have you witnessed, and when?
3. What have been the prevailing diseases in your locality?
4. To what extent, if any, has typical typhoid fever prevailed?
5. What influence has the climate of our State on the production and progress of consumption?
6. Have you witnessed any instances of disease caused by want of proper diet?
7. Do you believe the State to be as healthy as the one from which you came?
8. What medicinal agents have you observed indigenous to the State, and what are their peculiar properties?
9. State briefly any fact, circumstance, or event, within your knowledge, that may throw light on the history of medicine in Kansas up to the Centennial year.

Signature: ————————

Address: ————————

Please fill this blank, sign, and forward to me at your earliest convenience—not later than the 1st of May.

J. H. STUART, M. D.,
Lawrence, Kansas,
President of Committee on Practical Medicine.

[If you have not sufficient room for the reply you wish to make to any

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question, please place the number of the question, and any additional information you may wish to give, on the back of this circular.]

FIRST QUESTION: *How long have you practiced medicine in Kansas?*

In no case does the record of any physician extend back more than *twenty-one* years, while the average length of time reported is about *ten* years. What hopes and fears have been crowded into these few years of professional experience in Kansas! What shadows have stretched their sombre darkness over lives that had before been lighted by prosperity and enjoyment! What courage, determination, and persistence in the discharge of duty has attended all this! It is safe to say the history of all these experiences will never be written, beyond the trite but meaning sentence so often used of perilous times, "It was a period that tried men's souls."

No doubt a surplus of the profession was induced to come to the State by the flattering growth it made, as well as by the loveliness of its climate, the beauty of its undulating prairies and the fertility of its soil. This portion have in many instances wisely sought other places or have turned their attention to other pursuits. A few, averse, perhaps, to the enormous, and sometimes tedious and unrequitted labors of the rural districts, have abandoned the field and perhaps gone elsewhere. But all honor and well-merited success to those who have stood at their posts, doing their work and standing by their fellows in the dark hours when there was little reward for the time, and little hope for the future. These have learned the great lesson of serving and suffering which should ennoble and dignify man.

SECOND QUESTION: *What epidemics have you witnessed, and when?*

While the State has not been free from the visitation of certain diseases, to such an extent as to be designated epidemics, yet in the absence of statistics as to mortality, from the tenor of the replies of some, and the positive statement of others, I have inferred that they have not at any time been very severe nor attended by a high rate of mortality.

The instances mentioned are cholera, at Leavenworth and Kansas City, in 1866; at Harker and Ellsworth in 1867,

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Diphtheria, at Manhattan, in 1869–70–72–73–75–76; at Leavenworth in 1859–60–76; at Grenada in 1861, and in Louisville in 1862. Diphtheritic croup, at Leavenworth, in 1876. Small pox, at Leavenworth, in 1871; Gardner in 1864; Topeka in 1872–73; at Lawrence in 1855–63–64. Scarletina, measles, whooping cough and rubella have occurred from time to time at various points, but have been, almost without exception, mild. Cerebro-spinal meningitis has occurred at Leavenworth, Oswego, Arvonia, Highland, Louisville, Baxter Springs and Lawrence, but to what extent is not stated, except "several cases" at Arvonia, and a "few cases" at Kansas City. Of the epidemics of cholera, at Leavenworth, it is stated that "twenty or thirty cases occurred in the city proper, nearly all of which were fatal."

Of the above instances, it is in no case stated that they were malignant; but by several it is said they were non-malignant. Two epidemics of remittent fever are reported at Paola, in the autumns of 1872–73, of an asthenic form, and requiring vigorous treatment to prevent their assuming the typhoid characteristics.

Several have replied in substance that there has been no epidemics worthy of note. One says, "Kansas is not subject to epidemics." Another, "I have seen no epidemics." An epidemic influenza is said to have occurred about Tonganoxie, following the epizootic in 1872–73, and again in 1875–76. Dr. Prentiss, whose record reaches back twenty-one years (the longest reported), says the "exanthemeta are generally mild."

Thus it would appear that the instances alluded to as epidemics have rather been endemics, circumscribed in extent and mild in character, not probably attended by a great mortality, except that of cholera at Leavenworth. The occurrence of a few cases of an unusual disease is apt to be inappropriately spoken of as an epidemic, as are also the examthems and pertussis.

THIRD QUESTION: *What have been the prevailing diseases in your locality?*

The tabular statement is as follows:

The malarial affections (including intermittent, remittent, and typho-malarial fevers) are mentioned by 95 per cent. of correspondents.

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Pneumonia by 65 per cent. of correspondents.
Rheumatism by 30 per cent. of correspondents.
Diarrhœa by 15 per cent. of correspondents.
Dysentary by 15 per cent. of correspondents.
Bronchitis by 21 per cent. of correspondents.
Pleurisy by 15 per cent. of correspondents.
Erysipelas by 15 per cent. of correspondents.
Cholera infantum by 14 per cent. of correspondents.
Neuralgia by 14 per cent. of correspondents.
Cerebro-spinal meningitis by three correspondents.

A few allude to cholera infantum and other infantile diseases peculiar to the summer and fall months, one to acute throat troubles and catarrhal affections, while another states that the prevailing sickness in his locality has been obstetrics!

Thus, it will be seen that malaria is the persistent, prevailing influence in the production of disease in Kansas. It is plain that if it were eliminated the labor of the physician would be immensely curtailed. It is not in the purview of this paper to discuss the nature of malaria, further than to note its influence as a morbific agent, and such modifications as it may be subject to. It may be mentioned, however, that here, as elsewhere in malarious districts, it is a very frequent complication of other diseases, and to what extent is not very easy to determine. It is believed by many to be in itself the *origo mali* of many diseases that do not always exhibit the well-known characteristics of miasmatic affections, such as the neuralgias, bowel complaints, several forms of the neuroses, and even pneumonia, and perhaps others. At all events it is a good rule, aside from the wide range of usefullness of quinine, to eliminate early in the course of many of the non-malarious diseases, what there may be of malaria, by this remedy.

But the prevalence of malarial fevers noted by these correspondents is to be considered relatively. The table shows nothing of their absolute abundance nor of their gravity. It only shows that, compared with other diseases, they are most abundant. The common intermittent and remittent fevers, however, except the pernicious form, which is comparatively rare, are not attended with fatal consequences when promptly and judiciously treated. The nature and gravity of typho-

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malarial fever will be alluded to under the fourth question when speaking of typhoid fever.

I am a little surprised that more allusion was not made to diseases common to infants in the summer and fall months. I have seen these prevail more or less during the four summers I have spent in Kansas, and twice to a very considerable extent, and attended by a rather high death-rate. Pneumonia sometimes occurrs here in a severe form, somewhat of the character of the same disease in the Southern States, and is then attended by frequent deaths.

Extracts from letters of correspondence relative to the question:

PUGH.—Malarial fevers, pneumonia, pleurisy, and a few cases of rheumatism and diphtheria and a still fewer of croup, prevail.

WEYZR.—I know of no prevailing disease peculiar to this locality aside from the periodical diseases.

SEYMOUR.—Chiefly of the malarious type.

VAN EMAN.—Every year, if rainy, malarial fevers prevail. Under other circumstances no disease can be said to prevail.

FULLER.—Intermittents and remittents in the autumn pneumonia and rheumatism in winter, diarrhœa, cholera infantum and dysentery in summer, erysipelas and occasionally cerebro-spinal meningitis.

FOURTH QUESTION: *To what extent has typical typhoid fever prevailed?*

The table resulting from our correspondence is as follows:

Twenty-eight per cent. of correspondents have never seen a case.
Thirteen per cent. of correspondents have seen but *one* case.
Seven per cent. of correspondents have seen *two or three* cases.
Seventeen per cent. of correspondents have seen "*a few*" cases.
Seventeen per cent. of correspondents declare it to be "very rare."
Ten per cent. of correspondents have seen it to "a limited extent."
Six per cent. of correspondents have seen "several cases."
One per cent. of correspondents have seen it "pretty generally in late autumn."
One per cent. of correspondents think that "twenty-five per cent. of all those showing typhoid symptoms are true typhoid."

It will be observed that typhoid fever proper, or typical typhoid, was inquired after; the object being to get the

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opinion of medical men in regard to the frequency of that disease in distinction from the continued fever known as typho-malarial or bilious typhoid.

It is observed that there is some confusion in the minds of many physicians in regard to a proper discrimination of the two ailments, but most of correspondents seem to be pretty clear in their views.

It cannot be said that the profession has yet attained that absolute certainty as to the difference in the etiology and pathology of these two fevers that is desirable. Although the fever termed "typhoid" is also designated by other names, as "enteric," "abdominal typhus," etc., yet the pathological condition thus indicated is such as to be readily identified; while the same cannot be as certainly declared of that known as typho-malarial.

The name was given, I believe, to the profession by Dr. J. J. Woodward, to indicate a condition arising out of the circumstances attending our late war. "It was," says Hartshorne, "the result of a three-fold causation, the elements of which were *malarial influence*, *crowd-poison* and *scorbutic taint*. According to the predominance of one or the other of these, its character in different cases was determined." As to the morbid anatomy, the same author says: "Most important was the intestinal lesion, similar to that of typhoid or 'enteric' fever, though not identical." Dr. Woodward gives the following account of this lesion: "In the earlier stages there is little to distinguish the intestinal lesion from the corresponding process of ordinary enteric fever, except perhaps the great tendency to the deposit of black pigment in the enlarged follicles. * * * The tumefaction in typho-malarial fever rises very gradually from the surrounding mucous membrane, and attains a moderate degree of thickness on the edges of the ulcer. In this it differs materially from the ordinary typhoid ulcer, in which the enlarged patch rises abruptly from the mucous membrane in such a way that the summit is often larger than the constricted base, giving it, according to Rokitansky, the shape of a flat, sessile fungi."

The "three-fold causation," alluded to above, cannot be said to exist very generally in our State, where the disease so

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designated so frequently occurs, as indicated by the replies to the second query.

Although, as will be shown by this paper, there has been something of the *scorbutic taint* in consequence of a want of proper diet, in some instances from the late failure of crops, yet this is by no means a constant factor in the generation of this disease. And, again, it is seldom that there can be a suspicion even, of *crowd-poison* in Kansas. Thus the *malarial influence* is the only element of the "three-fold causation" to which the existence of the disease is, or can be, as a rule, attributed. What other influences may co-operate with this, need not be discussed in this paper. To me, the name typho-malarial has long been unsatisfactory, because in the first place it does not stand for any known constant individual pathological lesion; and in the second place it is, by its very indefiniteness, an unsuitable term for rigid diagnosis, thereby fostering indolent mental habits. It is (unfortunately for the rarity of *post mortem* investigations) by no means certain that the account of the disease by Dr. Woodward, given above, would describe the disease as it occurs in Kansas, but the presumption is, *a priori*, against it.

Dr. Flint's remarks on this disease seem worthy of note in this connection. He says: "Typho-malarial fever is caused by the combined action of malaria and the special cause of typhoid fever. * * * There is not a metamorphosis of the one disease into the other, but a combination of both diseases, the phenomenon of the one or the other disease predominating in different cases. Cases of typho-malarial fever occur in most, if not all, malarious regions. This fact shows that the special cause of typhoid fever is not held in abeyance by the prevalence of malaria, and generated only after the latter disappears. The extinction of malaria is followed by cases of unmixed typhoid fever, and hence it has appeared as if the latter follows in the wake of the periodical fevers."

Now, even in districts more or less malarial, there occur cases of pure typhoid fever, which, grave in themselves, are not rendered less so by a malarial complication; but the combination alluded to by Dr. Flint is in fact less grave than typhoid by itself. Besides this, the febrile movement of the

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two disorders, as determined by the thermometer, is not the same, by any means. "And the febrile movement," to quote from Liebermeister on typhoid fever, "is the one which most attracts attention, and is the most important in determining the diagnosis, prognosis, and treatment. 'The fever, in a great measure, controls the situation.' (Griesenger.) Since the course of the fever corresponds in general to the course of the primary lesions, and since the symptoms and secondary lesions are, in a great part, only results of the fever, it will be the best plan first to describe the course of the fever. * * * In typhoid fever, the febrile movement has, as has been determined by the extensive observations of Wunderlich, a typical and cyclical course. * * * The diagnosis of typhoid fever can usually be made from the fever curve alone, and this is true not only of the simple cases, but also of the obscure and complicated ones, provided that the physician is acquainted with the ordinary deviations. * * * In well-marked, simple cases, the entire duration of the fever is from three to four weeks. For the schematic representation we can distinguish four periods, to each of which belongs a characteristic degree of fever, and each of which lasts about a week. These four periods may be thus characterized:

"In the first week there is a gradual and steady increase of the fever.

"In the second week, the fever is continuous.

"In the third week, the fever begins gradually to be remittent, and the exacerbations gradually lower.

"In the fourth week, the fever becomes gradually intermittent, and the exacerbations gradually lower."

It is needless to add for those who have kept continuous records of temperature in typho-malarial cases, that there is an irreconcilable difference between the two schemes; usually in the latter disease the fever is high at the start—the highest during the attack if prompt and judicious treatment be given—and then it vacillates, gradually diminishing in height, except in fatal cases, manifesting, it is true, a diurnal fluctuation similar somewhat to that of typhoid fever.

The somewhat conflicting views existing in regard to these two complaints seemed to call for this brief discussion. I

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can but express the hope that the attention of medical men will be turned more closely to this matter.

EXTRACTS FROM CORRESPONDENTS' LETTERS.

MORSE.—Have never seen any (typical typhoid) except in persons recently from localities where it prevails. Have noticed an increasing tendency in continued fevers to assume the typhoid type.

FULLER.—Have seen very few cases of original, idiopathic typhoid fever. Cases of neglected, mistreated, or relapsed remittents assume some typhoid characteristics and are called typhoid fevers,

PUGH.—If ulceration of the glands of the small intestines be an essential characteristic of this disease, I think it is rare; nevertheless, I do not doubt that it prevails in Kansas to a limited extent. In the five years of my residence in the State, I have not seen more than 20 or 25 cases which I chose to call by this name, and if I had been guided by evidence of enteric lesion I do not think I should have had more than three or four cases of actual typhoid fever.

PORTER.—Do not think I ever had a case of typical typhoid fever to treat since I have been in this country.

WEVER.—If you mean by "typical typhoid fever" enteric fever or uncomplicated typhoid, I have met with but two or three cases in this locality in sixteen years, and two of these came from Colorado.

FRENCH.—Very limited when not caused by an abuse of cathartics.

PRENTISS.—I do not believe there has been a case of well-marked typhoid fever in this locality since its settlement, except in cases just from sections where it has prevailed.

ALLEN.—I do not remember having seen a case of genuine typhoid fever. It seems to be modified by the climate into typho-malarial fever, which disease has at times been very prevalent in this locality.

SHEAN.—To a very limited extent, and during the years when it prevailed remittent fever seemed particularly marked by its tendency to typhoid symptoms.

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STORMONT.—Rarely, if ever. Have probably seen two or three cases.

HOGEBOOM.—In the last two years pretty generally in latter part of summer and autumn.

VAN EMAN.—In every year between September and May I see from six to twenty cases of typhoid fever. (Thermometrical range being the test.)

LINLEY.—To a very limited extent, indeed. In fact, I do not remember to have seen but three or four cases since my residence in Kansas.

ANDERSON.—Most all malarial of intermittent character, if not broken up, has a tendency to run into a typhoid type.

SHELDON.—Typical typhoid fever has prevailed only to a very limited extent in this locality. I have seen only one case, and that about seven years ago.

HALDERMAN.—Have not seen any of the pure article, such as I witnessed in two epidemics in Pennsylvania.

TAYLOR.—Saw one case, and that was brought here from Michigan.

ROBERTS.—Not at all. Have seen but one case of idiopathic typhoid fever in ten years, and that was in a man only a few weeks from Tennessee. Have seen a typhoid state in several cases of remittent fever.

ROBINSON.—About an average of five cases a year in practice.

BROCK.—Have seen but a limited number.

NEWLON.—Some cases.

FIFTH QUESTION: *What influence has the climate of our State on the production and progress of consumption?*

A desire has been felt to ascertain the opinions of medical men concerning the influence of our climate on the production and progress of this "terrible scourge of temperate climates." Every contribution, however small, toward determining the natural history and pathology of this disease, cannot be wholly useless. As has been said, only opinions are given, but it is hoped that this record will be followed by the observation and collection of facts which shall shed a ray of hope for those whose pathway may be overshadowed by this grim spectre.

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Tabulated statements of correspondents:

Fifty-four per cent. of correspondents are of the opinion that our climate retards the progress of the disease, and benefits and prolongs the life of those coming here already affected with the disease.

Twenty per cent. think it favorable to those predisposed to the disease.

Forty per cent. think it does not tend to produce it.

Ten per cent. think it tends to produce it in negroes coming here from the Southern States.

Eight per cent. think that malarial fevers tend to produce it.

Eight per cent. know of no influence.

Seventeen per cent. think consumptives of the last stages decline more rapidly.

Five per cent. think it does not retard its progress.

The reason of this favorable view, as given by correspondents, is the dryness of our climate, and our medium elevation above sea level. Other influences will be noticed in the appendix to this report, on ozone.

This favorable aspect of our climate is fully sustained by the highest opinion of medical men on the influence of moisture as a factor in the production and development of consumption.

Dr. Bowditch, in 1862, announced the following conclusions, which are now generally received as facts:

"*First*—A residence on or near a damp soil, whether that dampness be inherent in the soil itself, or caused by percolation from adjacent ponds, rivers, meadows, marshes, or springy soils, is one of the primal causes of consumption in Massachusetts, probably in New England, and possibly in other portions of the globe.

"*Second*—Consumption can be checked in its career, and possibly, nay, probably, prevented in some instances by attention to this law."

Dr. Simon, of England, medical officer of the Privy Council, confirms these views of Dr. Bowditch, and states that "dampness of the soil is an important cause of phthisis in the population living upon that soil." "This conclusion must henceforth stand among those scientific certainties on which the practice of preventative medicine has to rest."—(Amer. Jour. Med. Science, January, 1876.)

The prevailing dryness, both of the atmosphere and soil, of this climate, is very noticeable. Fogs are rare. There are few

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drizzly days. After rains it is remarkable how rapidly the surface dries, one day of bright sunshine and ordinary wind sufficing to dry the surface after a heavy fall of water. People sleep with impunity and comfort between open north and south windows in the warm season, while a lively breeze, such as is the delight of our summer nights, fans them with more than Arabian deliciousness. Camping out has been known again and again to cure consumption. People sleep a light sleep, and rise in the morning with a keen sense of having been refreshed. It is also believed that they can endure more labor with less fatigue. Horses can travel further, and with more ease. There is an exhilaration that is inspired with the air.

There have, without doubt, been cases of consumption developed here, and of these a large per cent. have died. There can be no doubt, also, that there have been cases of recovery. It will require a record extending through a long period of time to establish laws of this kind; but the belief that Kansas exerts an influence very favorable to persons of consumptive tendencies will be greatly strengthened by opinions here recorded.

EXTRACTS FROM LETTERS OF CORRESPONDENCE.

MORSE.—It retards its progress in cases which come here from the East in the first and second stages; think it tends to produce it in Africans, especially those coming from the South.

FULLER.—Very few cases of consumption have originated here. Some cases coming here in its earlier stages seem to have been benefited and life prolonged. A neglected intermittent in those predisposed to phthisis accelerates its development, and hastens it to a fatal termination. There seems to be a marked tendency to phthisis among the colored people.

MOTTRAM.—Every case of consumption coming under my notice in Kansas has been imported; not one of a native Kansan. My observation leads me to believe that the climate of Kansas has a positive influence in retarding the development of the disease in persons predisposed to it, and to miti-

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gating the condition and lengthening life in those in whom the disease has been confirmed.

PUGH.—Five years is to short a time to observe the influence of climate in the production of consumption; but it has afforded ample opportunity to determine the favorable effects of our climate in the progress of this disease, where the patient has been amply protected against malaria.

PORTER.—Our climate is decidedly antagonistic to consumption. Most of the cases I have seen follow croupous pneumonia, due to caseous degeneration of lung in incomplete recovery.

MORRIS.—I have seen but few cases that were developed in this locality, most of which were colored people. The progress was rather rapid. I think this locality rather favorable for those predisposed to this disease.

WEVER.—No especial influence from climatic causes alone.

FRENCH.—I have no reason to think it has any. Most cases follow neglected cases of chronic pneumonia or neglected cases of general debility from atmospheric malarial poison.

HOUCK.—If a consumption is not too far advanced, this climate, if it does not cure, will generally relieve it.

BROWN.—I have known several cases of consumption to be developed here, some of which declined very rapidly. I have known some persons to come here from other States with consumptive tendency that were benefited.

PRENTISS.—I think consumption is rarely, if ever, produced in this State. It is frequently arrested, and life prolonged, by the influence of this climate.

SEYMOUR.—Its production does not seem to differ here from other States; but when once established its progress is very rapid, the patient usually dying in the spring.

ALLEN.—I have never seen a case of consumption that I thought was produced by our climate; but on the contrary, I have seen the disease benefited materially by the dry atmosphere of our climate.

SHEAN.—Very favorable. I have not known a case developed here. I have known several cases where its progress has been arrested for years.

STORMONT.—Very beneficial in cases coming from the East,

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early in the disease. Cases originating here run their course very rapidly.

WOODWARD.—Consumption is rarely produced in our State. Those cases coming from the East, with well-marked tendencies, are invariably benefited by the change.

HOGEBOOM.—It does not tend to produce consumption, and has a tendency to prolong the first stage where persons come here affected with it in that stage.

VAN EMAN.—Believe that it retards its progress in a majority of cases.

NEAL.—Owing to the altitude of the country and purity of the atmosphere, I deem the climate not productive or conducive to consumption.

LINLEY.—Our climate does not seem to retard the progress of consumption when it is fully developed. Consumption is rarely developed here.

GRAHAM.—While the climate in the extreme southern portion of the State is subject to very sudden changes, yet my observation is that it checks the progress of consumption; and consumptives coming to this climate, seeking health, have, as a rule, been benefited.

ANDERSON.—I think very favorable.

SHELDON.—Do not think this climate favorable to the production of consumption, nor to its progress, though less favorable to those far advanced with the disease.

FURLEY.—The climate presents a favorable condition for consumptives, on account of the moderate dryness of the atmosphere and medium elevation above sea level, and no excessive changes of any kind. The production of new cases is seldom met with.

HALDEMAN.—I think, under favorable hygienic conditions, its productions here is rare, and its progress is greatly impeded.

GIBSON.—I don't think this climate favorable to the production of consumption, and as far as my observation goes, it retards the progress of the already-acquired disease.

TAYLOR.—A tendency to cure it.

ROBERTS.—I do not think that phthisis pulmonalis is ever produced by this climate. In its earlier stages I believe

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patients are benefited by this climate; in its later stagas I think our climate hastens death. For a number of years it has been my opinion the air was loaded with ozone. This opinion has been confirmed by the observations of Professor Kedzie, of the Agricultural College—his statement being that the atmosphere here contains several per cent. more than that of any of the States east of the Mississippi river. As a result, epidemics of influenzas are more frequent, and bronchitis, in its various stages, more severe.

LEIGH.—I have known a number of persons who have been afflicted with chronic coughs while residing in the more eastern portion of the United States, that have been greatly benefited by emigrating to Kansas.

ROBINSON.—I have known many cases to come here in very bad condition, and receive great benefit from the change. *Per contra*, I have known many cases to be developed here and run to a fatal termination.

HANAWALT.—I believe our climate less liable to develop consumption than Ohio, and I have known cases where it seemed to have a beneficial influence on consumptives from the East.

BROCK.—I consider the climate of this State much better than that of many other States. Almost all the cases of consumption that I have treated were residents of other States having come here for the purpose of renewing their health. I have watched the progress of the majority of the cases, and find that they have almost invariably proved fatal.

NEWLON.—Think consumption is rare here.

SHOYER.—Think its progress is hastened by what I have seen.

SIXTH QUESTION: *Have you witnessed any instances of disease caused by want of proper diet?*

This question was asked to ascertain whether, during the late scarcity of food that prevailed in the State, disease prevailed in consequence, and to what extent. The disease referred to is scurvy, to a greater or less extent, from want of *variety* of diet.

The following are the tabulated replies:

Yes	53 per cent.
No	47 per cent.

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EXTRACTS FROM LETTERS OF CORRESPONDENTS.

FULLER.—A few cases of *purpurà hemorhageica* (scurvy).

MORRIS.—Several cases of scurvy during the winter of 1874–75.

FRENCH.—Much general debility from that cause.

PRENTISS.—In early times, a few cases of scurvy.

SEYMOUR.—An epidemic of scurvy in 1860–61.

SHEAN.—I have seen a few cases from a too-free use of proper diet.

GRAHAM.—During the year 1874 scurvy raged to a great extent.

HALDEMAN.—I have, when corn bread and bacon were the chief diet.

BROCK.—Among the poorer classes.

SEVENTH QUESTION. *Do you believe the State to be as healthy as the one from which you came?*

The replies to this question were, without exception, in the affirmative, and many of them were emphasized by "much more so," "absolutely more so," "certainly, without question," "far more so."

EIGHTH QUESTION: *What medicinal agents have you observed indigenous to the State, and what are their peculiar properties?*

A list of sixty-five medicinal agents, some of which embrace more than one species growing in the State, has been made out from the returns of correspondents, which it is not deemed essential to publish, since it contains none known to be found here exclusively, and some of them are exotics, having followed in the wake of immigration.

By a few was given some account of the properties of some of the plants, but it is evident that but little attention is given to the investigation of the medicinal properties of plants, and a strong disposition is manifested to rely upon our already extensive materia medica, made ready for convenient use.

EXTRACTS FROM LETTERS OF CORRESPONDENTS.

PUGH.—Spigelia, one of the best and safest anthelmintics known to the profession, abounds from Kansas City as far

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west as Newton, and perhaps farther, offering an inexhaustible supply to succeeding ages.

SHEAN.—For my observation on the qualities of podophyllum and ceonothus Americana, see page 14, Transactions State Medical Society, 1874.

ANDERSON.—The vervain in my hands has proved useful in the suppression of the lochia, by administering a strong tea, to the amount of a pint in two or three hours.

NINTH QUESTION.—*State briefly any fact, circumstance, or event, within your knowledge, that may throw light on the history of medicine in Kansas up to the Centennial year?*

No additional information of special note was elicited by this question, except that—

PORTER—Notices an abatement of malarial influence during the past three years, to such an extent that he finds it necessary to use comparatively little quinine; and

FRENCH—Thinks a regulation of one's clothing to atmospheric changes, a care to avoid unnecessary exposure, and plenty of good nutritious food, with quinine when needed, would make Kansas the healthiest country in the world. He also thinks that much harm is done by an abuse of cathartics, under the erroneous idea of biliousness, and that the mortality of infants is increased from withholding, through fear, a judicious use of anodynes.

STREET—Observes each year in our fevers more and more of the asthemic form, and hence supporting treatment is to be more relied upon.

HOGEBOOM—Thinks the discarding of mercury, antimony and blisters in pneumonia, and adopting a sustaining treatment with iodine and fomentations, indicate a marked improvement in the management of the disease.

HALDEMAN—Thinks the profession is "looking up;" that for intelligence and faithfulness to duty and earnestness of purpose, it is scarcely behind or below the members of it in the other States. Empiricism is evidently on the decline.

TAYLOR—Thinks there are few good physicians in the State, in proportion to the population, but many quacks.

BROCK—Thinks physicians are giving less medicine than formerly, because they understand better the prevailing diseases.

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NEWLON—Reports a flourishing medical society in Labette county; also, one at Oswego.

OZONE.

I append to this report a few observations taken from a paper on "Ozone in Kansas Atmosphere," read by Prof. Wm. K. Kedzie, of the State Agricultural College, before the Kansas Academy of Science, and published in the proceedings of its eighth annual meeting, and the following, etc.:

"We hear much from every quarter of the healthfulness so generally characteristic of the climate of Kansas; and no person long resident within the State can have failed to be strongly impressed by the unmistakable health-producing and health-sustaining features of Kansas atmosphere. None of us need to be reminded of the general immunity which we enjoy from the inroads of bronchial and lung difficulties; nor recall the startling recoveries which we have all witnessed when invalids are brought into our midst, completely prostrated by these maladies as they prevail in more eastern localities. I doubt not every thoughtful student has carefully sought for the adequate causes which have brought about so admirable a sanitary result. Our altitude above the sea is considerable, and yet is manifestly insufficient to account for so well marked a condition. Our atmosphere is proverbially a dry one. Now, it is far from being the object of this paper to attempt any solution of this interesting problem, in which so many elements must obviously enter, and in the discussion of which any unanimity of opinion is well-nigh impossible. It is simply my desire to call your attention, as a possible explanation of our climatic superiority, to the existence of an element which has thus far received little attention among us: the ozone, everywhere prevalent in Kansas atmosphere. Ozone itself is now regarded by leading authorities as merely condensed oxygen, with a density of one and a half times that of oxygen. A colorless gas of a powerful pungent odor (whence its name, 'odor producer'), exerting a peculiar irritating effect upon the mucus membrane of the throat and lungs; and with the oxidizing characteristics of ordinary oxygen much intensified. It will attack metals, and decompose binary salts, which it is entirely beyond the power of ordinary oxygen to touch.

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"But from whatever source produced, it is obvious that by far the larger portion of our atmospheric ozone must, on account of its intense oxidizing powers, be almost instantly consumed by decomposing organic matter wherever present. The atmosphere immediately surrounding stables or out-houses, or over decaying refuse heaps, will afford not the slightest trace of ozone; not, we are to understand, that it may not be there produced, but when formed it is at once consumed in the oxidizing processes in progress in such localities. Hence, we are not surprised to learn that in cities the indication of its presence is much more feeble than in the pure air of the country uninterrupted by organic effluvia. * * It is well known that when existing in the atmosphere in too great abundance, it occasions attacks of bronchitis and other bronchial disorders."

The following pertinent remarks are from Ziemson's Cyclopedia:

"Instances occur every now and then, in which, with every condition present for the development of malaria, this poison is entirely lacking. We cannot account for these exceptions unless it be on the ground of the disinfecting properties of ozone, which is said to be largely developed in some marshes."

The following extracts from a letter from Prof. Kedzie, to the writer, shall close this report:

"I fear that as yet too little is known to enable us to speak very positively of its supposed relation to certain types of disease. But observations, both in this State, in northern Minnesota, and in Michigan, afford very strong indications that such relations do actually exist. What we now need are careful observations upon the presence of ozone throughout the entire year, together with an exact record of the prevailing disease of each season in the same locality. * * * I can conceive a no more perfect corps of observers than a good number of intelligent physicians scattered throughout the State, who, in addition to a record of the cases met in their practice, could conduct throughout the year a series of ozone observations. Should your society feel disposed to move in the matter, I should take pleasure in furnishing its observers a complete set of color scales, record blanks and sensitive paper, for the entire year, at what the material cost me ($2.50 per set), only requesting that a copy of each record be forwarded me for tabulation. Taken in connection with a similiar work now being conducted under the supervision of the State Board of Health of Michigan, such a series of records would certainly lead to interesting, scientific and practical results."

LAWRENCE, KANSAS, 5th mo., 9th, 1876.

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REPORT ON SURGERY.

BY J. H. VAN EMAN, M. D.

GENTLEMEN: Disliking to bring before this Society anything of a didactic character, embodying facts and theories already familiar to the reading and thinking members of the profession, and already set forth in formal works on surgery, or in reports and monographs on surgical subjects, I long hesitated as to the subject-matter for my paper on surgery. I finally concluded to give a brief clinical history of the more important of my surgical cases for the last year—hoping by this course to bring before you, if nothing new, at least some of the points raised in my own mind while treating these cases, and as "in a multitude of counselors there is wisdom," be enabled by the remarks which this paper may possibly bring forth, to treat similar cases which may arise in the future, with greater pleasure, credit and profit.

APRIL 30, 1875.—Saw A. W., aged 5, female, colored. One week previously, while holding a small child in her arms, and standing on the lower rung of a ladder, about eight inches from the floor, she slipped, and fell backwards, her right foot lying on the rung and the child falling across her thigh. She could not walk nor stand on that leg when placed upon her feet. Her parents supposed she had sprained her knee, and did not send for a physician. On examination, found a transverse fracture of os femoris through the center of middle third. Placed the child on its back in bed, and prepared and applied five coaptation splints, secured by roller bandage, and then applied Hamilton's apparatus, which he describes as follows: "Two long side splints connected by a crosspiece at the lower ends, and reaching upward to near the axillæ, separated a little more widely below than above, so as to render the perineum more accessible, are laid upon each side of the body. The leg of the broken limb is secured to the long splint with a roller; the remainder of the limb, the opposite limb and the body are made fast with broad and separate strips of cloth." Watched the progress of the case closely, and at the

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end of five weeks removed all the dressings. Found the union complete and the limb perfect in every respect.

JULY 3, 1875.—J. B., aged about 36, German, saddler, single, very muscular, was violently thrown from a wagon, and striking on the point of his right shoulder and head, fractured his right clavicle near the junction of the outer and middle third. Applied Fox's apparatus; also confined the arm to body with a roller bandage. Perfect unison occurred in six weeks, with but little deformity.

SEPTEMBER 27.—T. D., aged 53, Irish, married, extremely round-shouldered, fell off his horse while trying to throw his right foot on the left side of the horse's neck. He struck on his shoulder and fractured his left clavicle in outer third. Applied dressing after the plan of Dr. E. M. Moore, of Rochester, N. Y. Did not succeed in getting good coaptation of fragments until I used a moderately large axillary pad. This I believe to have been principally owing to the conformation of the man. On account of want of care on the part of the patient (he went to cutting up corn), I found the displacement, three weeks after the accident, fully as great as at the beginning. I carefully readjusted the dressing and inculcated greater caution. At the end of nine weeks good bony union had taken place, but the deformity was marked. The most uncomfortable feature in the use of Moore's dressing, in this case, arose from the pressure upon the ulnar nerve. In the treatment of these cases, I obtained the best results from the modified Fox dressing. Should the patient with fractured clavicle be a young lady, or any one with whom it might be a great object to avoid any deformity, my experience and observation lead me to the conclusion that keeping the patients on their backs, on a firm, even bed, during the whole time of treatment, will give by far the most perfect results.

NOVEMBER 10, 1876.—Miss B, aged 18, was thrown from a buggy in very rapid motion, and sustained a backward and slightly outward dislocation of both bones of right forearm. Saw her seven hours after the accident. Found the whole arm greatly swollen, flexed at an angle of about 120 degrees, and semi-pronated. Not having chloroform, I proceeded to reduce without it, but had to call to my assistance three able-bodied

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men before I succeeded. Applied anterior and posterior pasteboard splints and a roller bandage, and directed continuous cold-water dressings. On the third day removed all dressings, and commenced passive motion. Last saw Miss B. February 1st, 1876. She says her arm is as good as ever. Flexion is perfect; extension a little less than natural.

I wish to say a word here on the subject of passive motion. All works which I have been able to consult, on dislocations and fractures, speak of passive motion, but none give any very definite directions as to the time after the accident when passive motion should be commenced. Hamilton says, in speaking of such dislocations as the above, "passive motion should be commenced at an early day."

Men eminent in the profession have said to me; "In such cases you must depend on your own judgment." Now, a man's judgment in such cases, to be of any value, must be based on his experience. Under present plans of teaching, or, perhaps I should say, of being taught, the average medical man has no experience worth talking about in the earlier portion of his professional life. In the management of such cases he is utterly at sea. I know that from the omission of more definite directions many such cases are treated with a painful feeling of uncertainty as to the proper course to be pursued. In my own cases hereafter I shall commence passive motion on the third or fourth day, unless a great amount of swelling or some other complication should make such action utterly impossible.

SEPTEMBER 15.—Saw P., aged 9; past history good; family history fair. Five days previously he cut his knee with a corn cutter. The wound was one half inch in length on the inner side of the patella, very angry looking, and giving exit to a thin, glairy, and slightly bloody fluid. Knee greatly swollen and very hot; limb flexed at right angles; axillary temperature 102°. He had not slept any for three nights, and was crazy with pain. His parents had already given him an active purging. R.: Tinct. aconite rad. gtts. ij, once in three hours; Tinct. opii gtts. x—xx, every two to four hours, pro re nata. Straightened the limb, and while an assistant made strong extension, applied a long posterior splint with roller

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bandage. Directed hot or cold applications to knee, to be varied as desired by the patient; diet to consist of milk. This line of treatment was carried out, with slight modifications, for twelve days, when I commenced passive motion. The case was discharged October 23d, with mobility of joint but slightly impaired. The limb at date of writing is perfect for all useful purposes.

OCTOBER 2.—Saw J., aged 11. One week before I saw him he cut his knee with a corn-cutter, at almost the same point as preceding case. The cut was one inch in length, and opened freely the cavity of the joint. Knee terribly swollen, and leg flexed at right angles. Partially straightened the limb and applied improvised splint and bandage. R.: Tinct. veratrum V. (Norwood's) gtts. ij—iij, once in four hours. Tinct. opii gtts. xv—xxx, every two to six hours. Also, pills C. C. ij, once in eight hours till bowels are thoroughly moved. October 5, found his general condition about the same. Leg again flexed. Administered chloroform, straightened the leg, and while an assistant made extension, applied long and thoroughly padded posterior splint with roller bandage. Continued other treatment with necessary changes in time and quantity. Diet, milk and beef tea. Commenced passive motion October 27. Discharged the case October 29. His father informed me a short time since that his recovery is complete.

Saw M., aged 4. Five hours previously she had been struck on the head by the larger end of a hickory pole, wedge-shaped, and sharp. Length of pole, ten feet; circumference of larger end, seven inches. This pole had been thrown down the hill by her father, who was not aware of her presence. When found, ten minutes after the accident, she was trying to get up. Found a scalp wound three inches in length, beginning about one inch in front of anterior superior angle right parietal bone, and extending backward towards the ear. Also, a fracture of the skull about one inch in length and one line in width. No depression of skull. While washing out the wound about one-fourth teaspoonful of brain escaped. Thoroughly cleaned the wound and brought the edges together by an interrupted suture in center of the cut. Gave an active

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purge of calomel and jalap. Directed that she be kept in bed with head high, and that cold be applied to wound by means of two folds of muslin wet in cold water. Cloths to be changed every five minutes night and day. Diet, small quantities of milk, *i. e.*, oz.ij in twenty-four hours. Saw patient next morning. Has passed a rather comfortable night. Pulse, 140; was 115 the night of accident. Cathartic had acted very freely. Gave ¾ gtts. Tinct. veratrum (N.) once in four hours; other treatment continued. Saw her twenty-four hours later. The veratrum had caused vomiting. No other complaint of bad feeling. Reduced dose of verat. to one-half a drop. Cold applications continued. To be brief, the same line of treatment was continued for six days. (I removed the suture at the end of seventy-two hours.) At the end of this time the scalp wound had healed in its whole extent by the first intention. No complaint was made after the vomiting ceased except that we did not give her enough to eat. She is now, to all appearances, in perfect health.

TONGANOXIE, KAS.

HYDROPHOBIA.

BY H. S. ROBERTS, M. D.

In the entire range of therapeutics, there probably is no subject that attracts more univeasal attention, no word in our text-books or current medical literature, which arrests the eye more promptly than *Hydrophobia.* There is no subject connected with which every point is more critically weighed. This arises not from an infatuation with that which is fearful or terribly dangerous, for the class of persons who catch, with most avidity, each thought upon this subject, are those who too often see death steal in and wrest his subject from their grasp to do otherwise than weigh, with exact balance, every subject brought forward.

The disease was recognized by the ancient Egyptians, while from some of the early Greek medical writers we receive an

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exact description of the affection, and as perfect differential diagnosis from tetanus and acute mania as any at the present day.

Of its causation, probably more has been given us within the past century than had been recorded altogether before. While authorities at the present time, admitting—as in that affection so analogous in many respects, syphilis—that there must have been a first case, as an argument for the spontaneous generation of the disease, yet almost universally agree that rabies arises alone from inoculation from the bite of an animal affected with the same, and give doubtful acceptance to those cases where it is claimed that inoculation has not been possible.

It has been argued that rabies has existed as an epizootic at different points, and because no person has observed a rabid animal, therefore it must have been of spontaneous generation. But there is not a recorded case of rabies among the wild animals of the many zoological gardens of the world, while in them are confined the fox, wolf, and jackal, each of which has been known to have been affected of rabies while roaming; and dogs which are under the constant surveillance of their masters are known to be affected in less proportion than among those having no home and master. Certainly spontaneity of origin would not be claimed for variola simply because it generally appears as an epidemic, and for the reason that the exciting cause could not be absolutely ascertained.

That spontaneity of origin for any one of all of the diseases in our nosology will yet be demonstrated to be an absurdity, but that a prime, absolute, unvarying cause will be proven for each as perfectly as that of scabies, I have not a doubt, although it may take the brain of the medical profession for a thousand years to perfect. What the specific virus conveyed through the saliva in the production of rabies is, has not been shown; but as in the case of the virus of the rattlesnake, which has been proven by Prof. S. Weir Mitchell to be both chemically and microscopically the same as albumen in the white of an egg, thus demonstrating that in its molecular arrangement lies its poisonous nature, it having been introduced into the stomach, with no ill effects, in amounts that

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would have produced death instantaneously if injected into the veins—so, reasoning from effect to cause, the saliva from a rabid dog has repeatedly been introduced into the stomach, and at no time was rabies produced; therefore it is my belief that it will yet be shown that the only difference in the saliva of a rabid and a healthy animal lies in the molecular arrangement of its constituent parts.

The danger of inoculation, so far as the location of the bite upon different parts of the human body, according to Bouley, are: wounds of the face, ninety per cent. have hydrophobia; upon the hand, sixty-three per cent.; the upper extremities, twenty per cent.; the trunk, about forty per cent., and the lower extremities twenty-eight per cent. The symptoms of hydrophobia vary slightly, according to individual idiosyncrasies, but the general symptoms are nearly the same in all cases. The bite received from a rabid animal usually heals as kindly as that received from one healthy. The absorption of the virus varies with the vascularity of the part bitten, the period of incubation being from fourteen days to nine months. A few cases have been reported of greater length, but there could be a doubt thrown in for each. Beyond three months, there is almost perfect immunity. The period of latency having passed, the active stage is generally ushered in with loss of appetite, headache and general illfeeling, and restless sleeping; then there is intense thirst and difficulty in deglutition, and when the endeavor is made to quench the thirst, a spasm of the muscles of the throat and chest, with convulsions; with this there is hyperæsthesia of the entire body—so much so that the pouring of any fluid, a breath of air, or any rustling of clothes, will induce a convulsion.

As the disease approaches termination, the symptoms are aggravated; there is a wild, haggard look to the face; the eyes give evidence of the general spasmodic action, the pupils being either dilated to the extreme or contracted to the "pin-hole"—usually dilated; the tongue is dry and swollen; the voice is barking; the respiration is hurried; the pulse is weak, and from 130 to 160 beats to the minute; the bowels are usually constipated, and the urine scanty and high colored. The most important symptoms, and which together are pathognomonic

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of the affection, are the dread of water and the hyperæsthesia, either of which will produce spasms of the throat and chest. Death supervenes in from twenty-four hours to six days, the average being about sixty hours, and may take place during a convulsion, or all the active symptoms may subside, the ability to swallow return, intellection be resumed, and there be a perfect calm for some hours.

The prognosis of hydrophobia is always unfavorable, not from the fact that it cannot be cured, but that it has always had a fatal termination, the reported cases of cures not bearing scientific investigation. The prognosis being thus always of a serious nature, it becomes necessary that the most active prophylactic measures should be pursued. According to French statistics, of 192 persons who died of hydrophobia, to 111, not one was cauterized; the remainder had the cautery applied late. Of 200 persons bitten by rabid animals, 134 were cauterized; and of that number 69 per cent. escaped, and 31 per cent. had hydrophobia. I can but believe that in those cases the cautery was inefficiently used. Adhering firmly to the principle of inoculation from a rabid animal as the source of every case of hydrophobia, the prevention of rabies becomes, naturally, the first subject in the consideration of prophylaxis. In this measure the State and municipal authorities should be the active agents. The township officers should be required to make a complete list of dogs, upon which a high special tax should be levied, in order thereby to reduce the number to the minimum. The owners of dogs should be required to place upon each a collar bearing the owner's name. All others should be destroyed. To each owner of a dog should be furnished, by the State, a pamphlet stating concisely the premonitory symptoms of canine rabies, the subsequent symptoms when the disease is fully established, and finally the most simple prophylactic measures in case a human being is bitten.

The following nut, from the *Medical Record* of July 15, 1874, contains a kernel of delicate humor within:

"Dr. Jitzki communicated to the Imperial Society of Wilna, Russia, a fact of some interest. A very savage dog was in the habit of killing vipers, and the mouth and neck were covered with scars and wounds inflicted by them. This animal was bitten by a

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rabid dog which had already bitten several cattle and another dog, all of which perished from rabies. The owner of this dog secured and watched him, intending to kill him on the first symptoms of rabies, but nothing of the kind appeared. A similar case occurred with a woman in the same locality."

Let every physician supply himself with a rattlesnake or copperhead for the purpose of protecting all young dogs by inoculation.

In Youatt's report of four hundred persons and animals bitten by rabid animals, who were cauterized by him, all escaped. In prophylaxis of hydrophobia, where it is possible, the following course should be pursued: Wash the part bitten with soap and water, or water with a little bicarbonate of soda in it; then apply dry cups; after which cauterize the wound thoroughly with solid nitrate of silver, made cone-shaped. Cups not being convenient, the wound may be sucked, if on a part convenient, by the person bitten; if not, by anyone, it having been demonstrated, as already stated, that the virus can be taken into a healthy stomach with perfect safety. Excision of the wound, after first washing, with the application of dry cups and free cauterization, has the merit of causing a free flow of blood and a possible washing away of the virus thereby, with the possibility of extending the surface over which the virus is spread. Many methods of cauterization have been used—the actual cautery with a white-hot iron, boiling oil, the various caustic acids, the explosion of gunpowder in the wound, etc., etc.—each of which is valuable according to the time when and the vigor with which they are used. The repetition of cauterization is advised, but upon the time and efficiency of the *first* application depends the safety of the one bitten.

Of the varied tricks of jugglery and secret remedies used as preventive, the chief action of which was and is upon the mind, a single example, taken from an address on "Medical Delusions," by a physician in New York, is given, chiefly because it contains a valuable grain in the midst of the chaff:

"In 1806, the Pennsylvania Legislature paid one thousand dollars to an individual for making known the secret remedy by which he prevented hydrophobia in all cases. It is as follows: One ounce of dog's jaw-bone, burnt and powdered; one ounce of the

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false tongue of a newly-foaled colt, burnt and powdered; this to be made into a paste by mixing with verdigris obtained from old copper coin, after being buried in the ground—that of George II. being the most efficacious. This paste to be applied to the wound —after which there is no danger."

The golden grain contained in this is, that finely-powdered animal charcoal is an excellent absorbent of all poisonous matters.

In the treatment of hydrophobia, when once it is established, there is little of hope. Almost every article in the materia medica, together with every system of treatment, has been used; brain and nerve stimuli, and brain and nerve sedatives; arterial stimuli, and arterial sedatives; tonic treatment, and depletory treatment; vapor baths, and cold douches; each and all have signally failed.

Upon opium and its preparations have medical men depended most, and while it has at no time had a curative action, there has been a remarkable tolerance of it. For a number of years it has been in my mind that woorari, acting as it does by paralyzing the nerve center, could be used with benefit in hydrophobia, and it has recently come to my notice of two cases cured by its use. The source of information was not very reliable; however, it is a drug that I believe should have a more extended trial by the profession in this affection, and should an opportunity occur would try it myself. The most that can be said, from what is already known, is, treat symptoms.

The specific object of this paper was the tracing to a definite source of a rumor which had become quite common in the western portion of this State (Kansas) and the general western and southwestern frontier, that the bite of the different species of the *genus mephitis* (common skunk) invariably produced hydrophobia. In other words that the salivary glands of the *mephitis* was the nidus for the spontaneous generation of the virus of rabies, by means of its ordinary normal secretion. It has been said that the bite was held in greater dread by frontiersmen, buffalo hunters, etc., than that of the copperhead. In order to obtain as many facts as possible upon this subject, letters were addressed to the medical officers at the various military posts through the West and Southwest; as, also, to a number of physicians in private practice, and to such

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other individuals from whom it was believed information could be obtained. The request was for facts, with names, dates, etc., of persons bitten by the skunk, whether hydrophobia had or had not been produced.

While it was believed that whatever there might be connected with this subject was of recent date, yet a thorough search has been made through all of the treatises at my command, that of latest date being the article on hydrophobia, by Professor Bollinger of Munich, in Ziemssen's Cyclopedia; and, it is needless to add, not a single item was found in any of them pointing to a knowledge that hydrophobia had ever been produced by the bite of mephitis. This certainly could not have been because of no person having been bitten by that animal in the various States east from this, or other portions of the American continent, as this pest of poultrymen has long been known through much of the present civilized globe. Writers upon zoology, in describing the genus, mention the rank, characteristic odor, but by none is its bite spoken of as a matter of serious consideration, and had the noxious character of its bite been virulent above that of all other animals, it certainly would not have been reserved to so late a date for discovery. In No. 227 (March 13, 1875) of the Medical Record, is a report of a number of cases, by Dr. J. H. Janeway, Assistant Surgeon, U. S. A., and in the American Journal of Medical Sciences, for October, 1875, is the report of a single case by Dr. J. A. Wolf, Acting Assistant Surgeon, U. S. A. These constitute all of medical literature that could be found bearing upon this subject. The article by Dr. J. H. Janeway shows him to have been a close observer and a thoroughly scientific man. His cases were all at or near Fort Hays, in this State. The case of Dr. Wolf was at Fort McKavitt, Texas. The simptoms, as given by him, are those which pertain to almost every case of hydrophobia—flushed face; hot, dry skin; pulse from 125 to 135 beats to the minute; eyes unnaturally brilliant, with some dilated, some contracted; tongue furred and somewhat swollen; extremely restless, with frequent catching at the throat, and convulsions upon water being poured, or air moving in the room. The so-called characteristic pustules under the tongue were wanting in all his cases.

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Of Dr. Janeway's cases nine died, and with one hydrophobia was prevented; eight cases of bites of the skunk were reported by him, with no ill result. Altogether I have obtained seventeen well-authenticated cases in which death from hydrophobia followed the bite of the skunk; thirteen cases where hydrophobia did not result, notwithstanding no treatment whatever, cauterization or other, was given; one case in which a dog died with well-marked symptoms of rabies (of the sullen or melancholic variety), following the bite of this animal, although he had been previously bitten three or four times in encounters with them; and ten cases of dogs having been bitten while destroying them, in which rabies did not follow.

One of the cases has a point of so much interest in it that I will give it more fully. In the early part of May, 1873, Dr. Jaycox, a physician living in Western Kansas, was bitten in the hand by a skunk which was destroying his chickens, at night. The wound healed rather kindly, and thought of it dropped until in July following, when he felt a peculiar sensation in the cicatrix, and aching up the arm from it. He had loss of appetite, and general "malaise;" his eyes were brilliant and glaring; he had high fever, and was extremely nervous. In the latter stage of the disease his voice became altered, was shrill or barking. In the treatment, which was directed by himself, rests the peculiarity; he ate ice and drank ice water, and whenever he felt a convulsion coming on, which was preceded by what seemed as he described a rush of blood to the head and upper part of the neck (this was so much so that the parts presented to the attendants a deeply congested look), he directed iced water to be poured upon the posterior portion of the head, and allowed to run down over his body as he sat in a tub. This would abate the symptoms, and leave him pale and calm. As his friends had but a small supply of ice, it soon gave out, and convulsions, with choking sensations of a fearful nature, followed one another rapidly until death released him — it having been four days from the commencement of the attack — he having been conscious up to fifteen hours prior to death.

This case shows that there may be rabies in the human

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subject, without hydrophobia. All of the cases of hydrophobia from this cause, excepting the one from Fort McKavitt — and letters were received from army medical officers in Texas and New Mexico, that although they had known of the skunk for years near their posts, yet had never heard of a case of hydrophobia from their bite — were in the western part of this State (Kansas), and near the lines of the Atchison, Topeka & Santa Fe and Kansas Pacific railroads. Thus you will see the geographical limit is quite circumscribed.

It may be asked, if rabies is not of spontaneous origin in the skunk, whence arises it? My answer is, probably from inoculation from the bite of rabid wolves. A number of cases of hydrophobia from the bite of rabid wolves have been reported from the western part of this State within the past ten years, and as it is known to be more ferocious, when rabid, than the dog — biting almost everything in its path — it would not be surprising for it to bite even so offensive an animal as the skunk.

That the bite of the skunk, when not given in self-defense, should be a subject of great dread, is not to be wondered at, as it is an animal which, while of nocturnal habits, is naturally timorous. According to Dr. Janeway, it is a demonstrated fact that the mephitis loses its characteristic odor upon being affected with rabies, and will then attack when unprovoked. Its bite is almost invariably received at night — when little immediate attention is given — upon the face or hand. One case only reported to me was bitten elsewhere, it being in the great toe. These parts, unprotected by clothing to prevent the contact of saliva, furnish an excellent nidus for the rabid virus.

The facts obtained are evidence conclusive that the bite of any variety of mephitis *per se* will not produce hydrophobia, and only, as with the dog or any other animal, when the animal is itself rabid from inoculation, is its bite poisonous. One thing more is shown, that vigorous prophylactic treatment should be given to every bite from them, for the bite may be during the stage of incubation, when the characteristic secretion has not ceased, and reasoning from analogy, the bite would prove serious.

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As to the exceeding dread by frontiersmen of the bite, above that of a poisonous snake: Were the stick of nitrate of silver as usual a portion of their outfit as the bottle of whisky, this probably would not be held by them; for as they have implicit faith in the one, which is not absolute in its action, so they might soon learn of the other, which, as has been already shown, has been demonstrated to be protective.

CARBOLIC ACID.

BY H. O. HANAWALT, M. D.

Among the comparatively new medicinal agents, none, perhaps, have been more generally experimented with by the profession at large, and, on the whole, with such satisfactory results as carbolic acid. Runge discovered it in 1834, in coal tar, and named it carbolic acid. It was not, however, until 1841, that Laurent gave it a more thorough investigation, and described it as *hidrated oxide of phenyl.* Its acid property having been subsequently recognized, it received the name of *phenic acid.* It would, however, seem that its claim to be classed among the acids is very feeble; for, although it combines with salifiable bases, it will neither neutralize the alkalies nor affect the color of litmus. Wood expresses its composition by the formula $C_{12}\ H_5\ O+HO$. It is found in the shops in crystals and in solution. If exposed to the light or air, the solution becomes dark, very offensive, and more disagreeable to the taste. The mode of preparation, which has recently much improved, and the further particulars of its properties, I small omit.

In its pure state it is a powerful irritant to the skin, producing a whiteness of the surface, which is attributed to its property of coagulating albumen. The effect on the mucous membrane is the same, and if continued long enough, produces a superficial caustic effect. Taken internally, in large

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quantities, it operates as a corrosive poison, several cases of death or serious injury having been reported. Its effects, when internally taken, have been more thoroughly studied within the past two years. In medicinal doses it is slightly stimulating to the circulation. It is also a diuretic and expectorant. In experiments made by Dr. Kempster, of Utica, N. Y., on some of the smaller animals, by confining them in large glass vessels, with liquid carbolic acid, he observed that they were first greatly excited, soon began to show signs of intoxication, by their staggering movements, which were followed by a state of anesthesia, and death preceded by violent convulsions. (Amer. Jour. Med. Sc., July, 1868.) Last October I made similar experiments with four mice, but in only one instance was the anesthesia followed by convulsions. After the period of excitation, a state of profound stupor gradually ensued. In this condition they would slowly assume a crouching position, from which they were aroused by pinching the toes, but only to relapse immediately into the state of mental inactivity. After a period of some thirty minutes, they began to exhibit a loss of the co-ordinating power, and soon were entirely helpless, every muscle being apparently paralyzed. Death followed in from a quarter to a half-hour, only one of them showing a tendency to convulsions. These observations indicate that the cerebrum is affected before the cerebellum.

But the most important property of carbolic acid is its destructive influence on the lower grade of organic life. A very weak solution will destroy vegetable mold. It is very effective in preventing putrefaction in all animal substances. It also prevents fermentative processes in or out of the body.

Carbolic acid is very efficient in those gastric affections dependent on the fermentation of indigested food, flatulence, yeasty vomiting, and in obstinate diarrhœa, with offensive stools. After treating a child, two years old, affected with a persisting diarrhœa, for a week with nearly all the routine remedies, I put him on teaspoonful doses of a five-drop solution of carbolic acid every six hours, which immediately changed the character of the dejections, and after the fourth dose it was found unnecessary to continue treatment.

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In cases of gastralgia, especially when accompanied with fetid eructations, it has, in my hands, proven very effective. In one such case, where I had given morphia, belladonna and gelseminum ineffectual trials, drop-doses of liquid carbolic acid gave immediate relief. There is no doubt that it is of use in typhoid fever, especially if meteorism be marked. One of the physicians on the staff of the Cincinnati Hospital (Dr. Davis, I think) reported favorably of its use in several cases in 1872. In all the so-called zymotic diseases, as scarlatina, diphtheria, etc., independently of its usefulness as a local application, it is now largely given on the theoretical ground of its anti-fermentative property.

Attention has recently been directed to the treatment of whooping cough by carbolic acid inhalations. In the *British Medical Journal* of October 16, 1875, Dr. Harrison says:

"During the early part of the present year I had under care about forty cases of whooping cough, occurring amongst the children of officers connected with her majesty's convict prison. At the suggestion of Dr. Lee, I tried the inhalations of the carbolic acid vapor. * * * Great relief followed these inhalations, the distressing paroxysms accompanying the cough being especially alleviated; and the parents remarked that a good night's rest invariably followed after they had inhaled. This course of treatment was continued every other day for about five weeks, and proved eminently successful in all but two cases, in which it caused some amount of bronchial irritation, and had in consequence to be discontinued. During the epidemic two fatal cases occurred, both having suffered the previous winter from capillary bronchitis, being of weakly constitutions. These two had not inhaled the vapor. Two adult cases came under notice, one aged 28, the other 35."

I have employed it in but one case, a mild one, and the parents informed me that the paroxysms were shortened and their frequency much reduced As these ends are very desirable in this distressing affection, I think the remedy merits a fair trial.

But it is as a topical remedy that carbolic acid has been mostly celebrated. Its antiseptic and antizymotic properties render it peculiarly valuable in this respect. Several other agents have a greater power to neutralize effluvia than carbolic acid—as chlorine, bromine, and permanganate of potash. Indeed, it is denied that carbolic acid has any effect on the effluvia, save

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to cover it up by its own more pungent exhalations. Carbolic acid acts on the putrefactive and fermentative sources of the exhalations by destroying the animal and vegetable organisms, when the matter ceases to smell, simply because it ceases to putrefy or ferment; while by the use of other deodorizers, it is only by their constant presence that the odor is prevented, and the putrefaction goes on unchecked.

As a paraciticide, carbolic acid is highly useful as a topical application in all diseases dependent on the presence of microscopic plants or animals, as scabies, in which it destroys the itch insect; the different forms of porrigo and trichosis, pitryasis, thrush of infants, and in all cases of minute vermin. In these cases it may be applied in weak solution, in the form of ointment, or, if the affection be widely diffused, in the form of bath. I have given no other prescription for three years for scabies but a solution of carbolic acid, the strength varying with the extent of surface involved, and I do not now remember a single failure. In the different forms of porrigo, I deem it of especial value, particularly in that form affecting the heads of infants; and in these cases, if there is much diffusion, it should not be applied as a wash, but in the form of a poultice. Last December I prescribed a carbolic-acid wash, together with constitutional treatment, for a child affected with an erruption of the head. In a few days I was hastily summoned to see the child, and found it presenting strong tendencies to convulsions, there being decided opisthotonus, a marked congestion of the conjunctiva, with slight strabismus. The scalp presented one coalesced mass of honey-combed scabs, of a dark, almost black, appearance. I gave the parents an unfavorable prognosis, ordered potass. brom. grs. iv., elix. ammo. valer. gtts. v. every two hours. I then ordered a flax-seed poultice mixed with a solution of the strength of about one per cent. of carbolic acid. This was spread on a cloth, fashioned like a cap, but with less concavity, and made to cover the whole scalp. In six hours this was removed, to give place to a fresh one. When the second was removed, the scabs were found changed to a light yellow color, the thin, ichorous discharge to a healthy pus, and at numerous points granulations were springing up. The poultices were then renewed twice daily, and in ten days it

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was almost entirely well. I have never seen it recommended as an ingredient of poultices, but in such cases as the above, I believe it to be the best mode of application. I have also tried it in the same manner in sloughing wounds, with equally good results.

In compound fractures carbolic acid is of incalculable value. In these cases it should be used in the undiluted, or but slightly diluted, form. In 1871 I saw a case of compound, comminuted fracture of the leg, with a wound the size of a silver dollar, treated with the pure acid; and it healed entirely by first intention, though the patient was not seen until some eight hours after the accident.

In the spring of 1870 I saw a very interesting case under charge of my preceptor, Dr. C. Smith, of Bloomingburg, Ohio, which very strongly illustrates the power of carbolic acid to arrest destructive ulcerative processes. It was in the person of Mr. C., an unmarried man, aged 35. In the previous winter he began to experience some difficulty in his throat, which slowly grew worse for about two months, when on examination, the uvula and soft palate were found to be covered by ulcerated patches, very strongly suggesting a *specific* cause; but as all evidences of the primary affection were wanting, and as the history, by the patient himself, did not support the theory, it was excluded. The nitrate of silver was generously employed, and as there was considerable anæmia, he was put upon tonics. In a week he returned, and the throat was found to be even in a worse condition than before. This time the uvula was amputated, all the involved parts of the palate cut away, and then thoroughly cauterized. A few days after it was found that the destruction was still going on more rapidly than ever. It was with difficulty that deglutition, especially of liquids, was accomplished, as in the act they were forced up through the nares. Articulation, too, was defective, and accompanied by a peculiar nasal sound. I do not know how much longer the treatment spoken of was continued, but it was at least for a few weeks, when it was determined to try carbolic acid, then but little used in rural practice. A solution of carbolic acid and glycerine was applied three or four times daily. In a few days it was apparent that ulceration was, temporarily at least,

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arrested; and by its continued use the ulcerated pits began to heal, and the appetite, which had become very delicate, grew better. I saw him some months after, when he informed me that his throat was entirely well, and that he weighed heavier than he had done for a long time.

It is highly recommended in diphtheria and scarlatina. In the former disease it should be used in the outset, if possible. It is also useful in hemorrhoids, rectal fistulas, leucorrhœa, offensive lochial discharges, and otitis. In chronic cases of otorrhœal discharge, I have found its use by injections in the external ear, of eminent value. In ulceration of the os uteri, a small piece of the crystal acid may be applied through the speculum directly to the part, held there, and allowed to melt. In all cases of abnormal discharge from the uterus, or vagina, and especially if it be offensive, the free use of carbolic acid is indicated. It may also be effectively employed in ridding the rectum of the pin-worm (*ascaris vermicularis*), by copious enemas.

It is highly recommended as a dentrifrice, in carious teeth with offensive breath, and to keep the teeth clear of tartar, or other morbid deposit. Introduced in the concentrated liquid state, on cotton, into the cavity of a carious tooth, it quickly relieves pain. For a severe scald, or burn, I have found it the most satisfactory of any remedy I have used, as it relieves the pain and hastens the cure. I use it in the form of a liniment, according to the formula in the Dispensatory — *i. e.*, one part of carbolic acid to six of olive oil, rubbed together, and applied on lint. In indolent ulcers of the tibia, and dorsum of the foot, I have been less successful, except in one case, where I applied it on a poultice.

The dose of the concentrated liquid is from half a drop to two drops, given largely diluted with sweetened water. Perhaps the best menstruum is glycerine, which dissolves it in all proportions. For topical application the strength varies, according to the object to be attained. A solution containing one grain to the fluid ounce of water may be used for application, in the form of spray, to the fauces, larynx, and bronchia, by means of the atomizer; and the strength may be increased, if necessary, to four or five grains to the fluid

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ounce. For disinfecting sick-chambers, close-stools, privies, or other places where filth is allowed to accumulate, carbolic acid is, perhaps, not excelled by any other agent, and for this purpose a very dilute solution, or the impure solution found in the shops, still further diluted, is all that is required.

Perhaps the greatest objection which can be urged against carbolic acid, especially for internal exhibition, is its smell, which to some persons is very offensive. After a few doses, however, I find that patients usually overcome this.

In this paper I have endeavored to give the leading indications for the use of carbolic acid, believing that many clever physicians seldom prescribe it because they have not witnessed the miraculous results attributed to it by a few enthusiasts.

ARVONIA, April, 1876.

A CASE OF COMPOUND, COMMINUTED FRACTURE OF THE LEG.

BY R. MORRIS, M. D.

February 4th, 1876, S. J. C., aged 55, was engaged in packing away ice, when a large piece, weighing about two hundred pounds, accidentally escaped from the man above him, who was delivering it into a chute to carry it down to that part of the building where it was finally stored away, and after sliding several feet with increasing velocity, came against his left leg, about the junction of the middle with the upper third, fearfully crushing both bones, and driving the end of the fractured tibia through the integument, thus making a compound, as well as a comminuted fracture. The opening was large enough to admit the ends of two fingers.

I take great pleasure in stating here that I am under many obligations to my esteemed friend, Dr. A. Fuller, who rendered me valuable assistance, and to whom much credit is due, for the mode as well as the skill with which the fracture was dressed.

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An examination revealed the fact that the soft parts were very much lacerated, and one large spiculum of bone was separated from the main shaft of the tibia, but still firmly attached to the periosteum. The first thought was to remove it; but finding no portion of the periosteum separated from it, we concluded to leave it, and place, as nearly as possible, in situ, while adjusting the main fracture.

We were not long in deciding upon the course of treatment, which was, to envelop the whole limb, from the toes to the knee, in a firm starch or paste bandage, which was done as follows: First, a dry roller was applied, simply moistening the edges where they overlapped with a little flour paste, to prevent slipping, after which the paste was used freely till three thicknesses of roller were applied. The open wound was covered with a light compress, saturated with blood. Four light splints were now carefully applied, observing to leave sufficient space between those in which the flesh wound was inclosed to admit of making an opening for the discharge of pus, in case suppuration should occur, without disturbing the general dressing. Our object was to convert a compound fracture, if possible, into a simple one, which, to our infinite gratification, was accomplished most perfectly.

It would be too tedious, as well as unnecessary, to give in detail the subsequent management of this interesting case. Suffice it to say, that this first dressing was permitted to remain undisturbed about six weeks, except at the end of four weeks a flap opening was made over the region of the flesh wound, to learn what was going on there, and also to ascertain what progress was being made towards bony union. Finding everything satisfactory, this opening was closed until the time above mentioned.

At this time the bandage was becoming quite loose, in consequence of the subsidence of the swelling. I divided the bandage in its entire length, taking out about an inch, and tightening it up with several strips, similar to the many-tailed bandage. I was well pleased to find a good degree of firmness at this period, and my patient began to help himself around with crutches. The only troublesome symptom during the course of treatment was a severe and persistent pain in the course of the anterior tibial nerve.

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I have omitted to mention one item in the management of this case, namely, the means used to secure extension and counter-extension. This was accomplished very successfully by two splints extending from a little above the knee to about four inches below the heel, with small holes in each end, through which suitable straps were passed and so fastened as to effect the desired object. These splints were applied, one on the inner and the other on the outer side of the leg. The leg was put upon an inclined plane to aid the extension, which was all that was necessary, if anything, after the paste hardened.

It is now a little over three months since the accident. The patient is quite comfortable, and gets around nicely with one crutch, and does some manual labor.

I have been induced to report this case to the society, not because of anything new or original in its treatment, but to illustrate what I deem the superior advantages of the principle involved in the management of fractures generally with the starch or paste bandage. The addition of glue, where greater firmness is desired, will be found valuable.

LAWRENCE, KAS., May 9, 1876.

RUPTURE OF PERINEUM.

BY C. V. MOTTRAM, M. D.

A case of ruptured perineum came under my observation a few weeks since, a brief report of which I desire to submit to the society.

Mrs. F., aged 30, married in July, 1871 (then aged 25), became pregnant in March, 1873, and was confined in November. She was forty-five hours in hard labor. The liquor amnii escaped at six o'clock Monday evening, and she was finally delivered with forceps, at three o'clock Wednesday afternoon, of a still-born child. In accomplishing the delivery, the perineum was ruptured through the sphincter ani, and through the recto-vaginal septum.

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Owing to the long-continued pressure of the fœtal head on the vaginal walls, there was extensive sloughing, which kept her months in bed, and incapacitated her for walking until the following April. No attempt at surgical repair was made, but nature accomplished much more than could have been anticipated.

The present conditions are as follows: The lateral vaginal walls (probably the seat of extensive sloughs), have contracted into a firm, unyielding cicatrix, which, together with a portion of the recto vaginal septum remaining entire, form a ring just under the pubic arch, constituting the entrance of what is now the vagina. This ring or opening will hardly admit the index finger. Just within this ring, and resting upon the recto-vaginal septum, is the uterus, apparently in its normal condition. The length of the vagina is only from the os up to its attachment around the neck of the uterus, about one inch.

The anus is formed of about one-half of the original external sphincter and the recto vaginal septum. It is situated about one inch from the meatus urinarius, and will barely admit the finger. There is no perineum proper—no integument between the anus and vagina—merely the mucous septum, which is firm and inelastic.

The contraction of the cicatrix being sufficient to draw the remains of the anus up beneath the pubic arch, as a consequence the integument between anus and coccyx is correspondingly lengthened, and now measures five or six inches. There is partial incontinence of urine, feces and intestinal gases. The bowels are moved several times a day. She is in other respects in good health and flesh.

I now come to the most important part of my report. She is two months advanced in pregnancy. She and husband are both anxious to have a living child, and have been informed that at seven months, aided by a surgical operation, she may be *safely* delivered and the child survive. I am of a different opinion. Owing to the great destruction of tissue, no surgical operation beyond that of dividing the cicatricial ring on both sides of the vagina promises anything; but this, at that stage of development, will not prevent the rupture of what remains of the recto-vaginal septum and the integument which now

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constitute the floor of the pelvis. That being my view of the case, I advised the induction of premature labor at the third or fourth month, making such surgical operations as should be deemed advisable at that time. I should be pleased to hear the views of the society on this point.

LAWRENCE, KAS., May 9, 1876.

PROCEEDINGS OF THE KANSAS STATE MEDICAL SOCIETY.

LAWRENCE, May 9, 1877.

The Kansas Medical Society met at Odd Fellows' Hall, Lawrence, Kansas, May 9th, 1877, at 2 o'clock P. M., and was called to order by the president, Dr. S. H. Roberts.

On motion of Dr. Sinks, Dr. D. C. Jones, of Topeka, was made secretary, *pro tem.*

On motion of Dr. Schenck, the reading of the minutes of the last meeting was dispensed with.

Roll call.—The following members were present, viz.: Drs. G. R. Baldwin, W. W. Crook, J. M. Carpenter, C. C. Furley, A. Fuller, J. T. P. Gephart, G. W. Haldeman, W. B. Hoover, H. O. Hanawalt, D. C. Jones, G. L. Lewis, J. S. Lawrence, R. Morris, F. D. Morse, C. V. Mottram, V. W. May, V. G. Miller, M. McConnell, T. Sinks, J. M. McMurray, A. Newman, S. B. Prentiss, H. S. Roberts, J. H. Stuart, W. L. Schenck, J. T. Scott, J. H. Van Eman, H. P. Woodward. *Honorary Members.*—George Halley, T. B. Lester, A. B. Taylor, S. S. Todd.

Dr. Sinks moved that Dr. Porter, of Kansas City, who was present, be elected an honorary member of this society. Carried unanimously.

Dr. H. S. Roberts, the president, then read his address, which was referred to the committee on publication.

On motion of Dr. Schenck, the following committees were appointed:

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On Metric System of Weights and Measures : W. L. Schenck, C. C. Furley, J. H. Van Eman.

On the establishment of Medical Museum and Location of Society : D. C. Jones, T. Sinks, C. V. Mottram.

Dr. Furley moved to amend art. 4th, sec. 1, of By-Laws, to read, "Every member shall pay $1.00 dues annually." Carried.

Dr. Sinks offered the following amendment to the By-Laws, which was adopted.

Resolved, That the By-Laws be amended as follows :

First, By striking out the following in Sec. 1st of Art. 1st: "Or if he be an undergraduate, he must have had three years of reputable practice in the profession."

Second. By omitting all of Sec. 2nd of Art. 1st.

Dr. Morris made the welcome address.

Dr. Cochrane's report of finance was read by the secretary and referred to the following committee :

Drs. Van Eman, Hanawalt and Carpenter.

The bill of D. W. Stormont, for stationery, stamps, etc., $10, and the bill of Dr. Van Eman, of $12 for stationery, etc., were referred to same committee, who found the treasurer's report correct, also the bills of Drs. Stormont and Van Eman, and recommended their payment.

Committee on practical medicine, Dr. Sinks, made a report of a case of congenital tetanus, which was referred to committee on publication.

Report of committee on surgery. Dr. Mottram asked further time, which was granted.

Report on obstetrics, by Dr. Shoyer, read by Dr. Sinks, and referred to committee on publication.

Drs. Furley, Sinks and Schenck were appointed to fill vacancies on Board of Censors.

The following names were referred to the Board of Censors, for membership, reported upon favorably, elected, and signed the constitution:

Drs. M. O'Brien, of Topeka; J. A. Coons, of Springhill; J. Bell, of Olathe; S. Whitehorn, of Wichita; G. W. Lowman, of Oskaloosa; W. H. Buckmaster, of Oskaloosa; R. D. Adams, of Skiddy.

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Dr. E. J. Protherow was invited to a seat in the society, and to take a part in the discussions.

Reports of special committees:

Recent advances in Hygeine. Dr. Woodward asked further time, which was granted.

On Concentrated Remedies. Dr. Schenck said he had no report on that subject, but would make a report on Septic Diseases. Report read and referred to committee on publication.

On motion of Dr. Haldeman, that a committee of three be appointed on Necrology, Drs. Sinks, Baldwin and Hoover were appointed.

Nominating Committee: T. Sinks, J. H. Stuart, C. C. Furley, M. O'Brien, G. R. Baldwin.

Society adjourned to meet at 7½ o'clock this evening.

EVENING SESSION.

Society met pursuant to adjournment, the president, Dr. H. S. Roberts, in the chair.

Dr. Carpenter gave an interesting description of the treatment of fracture of patella and head of humerus with plaster Paris.

Dr. Mottram made report on Surgery, which was referred to committee on publication.

Drs. Todd and Halley made some interesting remarks. Dr. Taylor was called for, who also made interesting remarks.

The remainder of the evening was taken up in discussions, in which Drs. Porter, Schenck and Sinks took part.

Society adjourned to meet at 8 o'clock in the morning, May 10th.

MORNING SESSION.

Society met pursuant to adjournment, Dr. H. S. Roberts, president, in the chair.

Committee on Necrology made report, which was referred to committee on publication.

Nominating committee made report. Adopted.

Dr. Van Eman made a report on Typho-Malarial Fever. Referred to committee on publication.

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Dr. W. W. Cochrane made a report on Syphilis. Referred to committee on publication. Numerous other reports referred to committee on publication without reading.

Dr. May introduced the following resolution :

Resolved, That all papers requiring more than twenty minutes to be read, be referred to committee on publication without reading.

Lost.

Dr. C. C. Furley offered the following :

Resolved, That the publishing committee be instructed to place on the title page of the proceedings of the society, the following sentence: "This Association does not necessarily indorse any opinions expressed in the within papers."

Dr. Sinks offered the following:

Resolved, That in acceding to the request of Dr. Stormont, to relieve him from further service as secretary, we desire to bear testimony to his faithful and efficient services for the last eleven years, and to express the hope that he will in nowise relax his efforts in promoting the welfare of this society, nor his interest in its proceedings.

The chair appointed the following publishing committee: F. D. Morse, D. W. Stormont, J. H. Stuart.

Committee of Arrangements : All members of the society who reside in Topeka.

The nominating committee made the following report :

OFFICERS FOR THE ENSUING YEAR.

President.—Dr. W. L. Schenck, of Osage City.

1st Vice-President.—Dr. C. C. Furley, of Wichita.

2d Vice-President.—Dr. J. H. Stuart, of Lawrence.

Secretary.—Dr. F. D. Morse, of Lawrence.

Assstant Secretary.—Dr. Victor Biart, of Leavenworth.

Treasurer.—Dr. W. W. Cochrane, of Atchison.

Board of Censors.—Drs. M. O'Brien, H. O. Hanawalt, D. C. Jones, G. L. Lewis, G. R. Baldwin.

REGULAR COMMITTEES.

Practical Medicine.—Drs. J. Bell, D. C. Jones, W. B. Carpenter R. Morris, A. C. Van Duyn.

Surgery.—Drs. W. H. Buckmaster, A. Fuller, F. Speck, E. W. Seymour, W. H. Warner.

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Obstetrics.—Drs. G. W. Haldeman, J. J. Crook, H. P. Woodward, J. M. Linly, W. W. Cochrane.

Materia Medica.—Drs. W. D. Hoover, W. N. Shean, T. Sinks, H. S. Roberts, M. S. Thomas.

SPECIAL COMMITTEES.

Recent Advances in Physiology.—Dr. T. Sinks.

Recent Advances in Chemistry.—Dr. S. Whitehorn.

Recent Advances in Hygiene.—Dr. W. M. Shean.

Infantile Diseases.—Dr. A. Newman.

Nervous Diseases.—Dr. V. Biart.

Medical Electricity.—Dr. F. D. Morse.

Capillary Bronchitis.—Dr. J. L. Weaver.

Gynecology.—Dr. J. H. Stuart.

Scarlatina.—Dr. G. R. Baldwin.

Diphtheria.—Dr. C. C. Furley,

Anesthetics.—Dr. D. M. Carpenter.

Diseases of the Eye.—Dr. J. S. Lawrence.

Delegates to the American Medical Association.—Drs. B. F. Helper, J. W. Brock, G. L. Lewis, D. C. Jones, H. S. Roberts, J. M. Carpenter, J. Bell, C. V. Mottram, C. C. Furley.

The society then adjourned to meet at 2½ P. M.

AFTERNOON SESSION.

The society met according to adjournment, president in the chair.

Dr. Todd, of Kansas City, made some remarks on a case presented by Dr. Stuart, which he diagnosed a case of fibro cystic tumor of uterus.

Dr. Schenck proposed the following amendment to the By-Laws which was adopted:

Art. III, Sec. 2. A committee on necrology shall be appointed at each annual meeting, who shall make appropriate obituary reports of members deceased during the year.

Drs. Weaver, Halderman and Whitehorn were appointed such committee for the ensuing year.

Resolved, That we tender our thanks to the officers of the Kansas Pacific, and Atchison, Topeka & Santa Fe railroads, and to the hotel keepers of Lawrence for their generosity in reducing the

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rates of fare to delegates, to the profession and people of Lawrence for their hospitality, and to the officers of the society for the faithful and efficient discharge of their duties.

The society then adjourned to meet at Topeka on the second Wednesday in May, A. D., 1878, at 2 o'clock, P. M.

D. C. JONES, *Secretary pro tem.*

ADDRESS OF THE PRESIDENT.

H. S. ROBERTS, M. D., MANHATTAN, KANSAS.

GENTLEMEN:—May, with her floral beauty and her breezes, gentle to all, again welcomes us to our annual gathering. It seems but a day, so rapid is Time's flight, since our discussions were dropped, to be resumed to day, our farewells said. Bright islands, these meetings of ours, in the rough sea of professional life. We hail them with pleasure, we leave them freighted with the rare fruit of social and intellectual advancement. May the meeting this year be such that the succeeding ones shall be sought, if possible, with more avidity.

If there is one idea more universal in its acceptance, at the present time, than any other, it is that of *growth*. Whether we take the field of biology and with Darwin start with protoplasm and trace the consecutive orders up "beings piled gradation," until we reach man the perfection of growth, or in the field of political science, commencing with the coming together of two or three families who regulate all things of the community by the last five simple rules of the decalogue, go on to the State with half a hundred millions of human beings governed by an abstruse constitution. Whatever theory we may hold for our own, or accept from others, whether from the division of cells, or increase from nucleus or nucleolus in the one instance; or of the increase from agriculture or the mechanic arts in the other, in each we accept that the life-principle is within and the growth from it, each stage of the development having, at the time, been considered

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perfect, yet each succeeding grade, seeing the former imperfections, demand something more perfect.

So with us as a medical society, each succeeding year should see some development in advance and some useless part dropped, and thus it is. The discussion one year ago demonstrated that the society would never again leave the three large cities, Leavenworth, Lawrence and Topeka. Whether it should become a fixture at one of these places perhaps we can better judge five years hence, but the Ulysses-like wanderings are over, and the appointment of a committee, to report at the next annual meeting, the most perfect conveniences to be obtained, and the best place for the location, with the necessary rules for the government of a museum of pathology for the society, will be appropriate. This having been perfected, the material that can and will be furnished will make it, by the end of our next decade, a credit as well as a permanent benefit to the society. The specimens numbered, with the reports of the cases bearing corresponding ones, each can be examined by all members of the society at least once in three years. Every year would find some addition rendering it more and more valuable and more eagerly sought. And thus, as our growth from within made our meetings more interesting in the number and character of papers and the discussion thereon, and in the numbers of interesting pathological specimens for examination, the number of our valuable members would be increased.

In almost every number of our metropolitan medical periodicals, to a less or greater extent, and in every translation of the medical works of Continental Europe for the past several years, the amount of medicine has been designated by *grammes* instead of grains, scruples, &c. How many medical gentlemen have been driven to their pharmacopœias it would be difficult to ascertain, but courtesy says the number is small. Our sister societies in the East are, to a considerable extent, adopting the metric system of weights for prescriptions in place of the old apothecary's. Shall we keep pace with them in the march of progress? The strong argument in favor of the old system is that we already have it learned, that we always *think* grains, scruples, drachms, &c. It would be an

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aspersion upon the mental caliber of any member of this society to say that he could not attain in a single hour a thorough understanding of the metric system, so far as it appertains to his prescribing. The gramme being the unit of weight, all variations in quantity are made by change in numbers before or after the decimal point, as in our notation of money, practically two terms would be used and two weights corresponding, grammes and centi-grammes, all other terms of the metric system of weights being discarded in practice. The hair is not yet gray upon heads that saw the transition stage from shillings, "York" and "Boston," the levy and the picayune to our present decimal system of money. Is there any one here so much a lover of ancient ways as to desire to leave our present system of dollars and cents, (for practically, the mill, dime and eagle are discarded in our calculations), and return to the other. Certainly one who can make the mental transposition from thinking shilling of $12\frac{1}{2}$ or $16\frac{2}{3}$ hundredths of a dollar, as his birthplace was east or west of the Hudson river, to dollars and cents, can also make that from thinking grains or $6\frac{2}{3}$ hundredths grammes to the metric system. It may be urged that it would confuse, for while one were using the metric or decimal system he would constantly meet those who used the apothecary's. Are we confused in our monetary calculations when we meet one who uses the term shilling? Nay, more, can we not judge accurately which shilling is meant, by whether the one who uses the term also does or does not use nature's sounding board, the vomer, in its pronunciation. Gentlemen, I leave the further consideration of this subject with you.

The question of medical legislation will come up with the committee appointed one year ago making the usual report upon that subject of hard work done with no results attained. The fact of men desiring legislation for purely scientific purposes and advancemet of public health, with no sordid money motive back, is beyond the ken of the average Kansas legislature, and when has it risen above that monotonous level? It will be a subject for your deliberation regarding the continuance of the committee, or whether it will not be better to drop the entire subject for at least three years, and devote ourselves

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to such a building up of the society that when next we go to the legislature we may *demand* these things from it and dare them to disregard our demand.

Magna Charta was granted by King John, not because it bore within it the eternal principle of right, but because his barons had the power to enforce their request.

Let us remember that "the mills of the gods grind slowly"—Oh, how very slowly it seems when truth and justice are waiting,—" but they grind exceeding small." So shall it be that all those things for which we have labored and are laboring—our advancement and the public good—for the two are synonymous—will at least be obtained.

It has been said that if all of the physicians of the country would unite upon and work for one man, they could elect him president, so great is their local influence. So, when we, having a majority of the physicians of the State actively working together, shall propose measures of public hygiene, the legislature will not hesitate in their adoption.

As it is the aggregation of individual effort that produces the perfect result, let none of us, by sparing himself a little extra labor, fail to add something for the mutual benefit, but let us so work that our structure shall each year become stronger and better.

SEPTIC DISEASE.

BY W. L. SCHENCK, M. D., OSAGE CITY.

One of the most difficult of the unsolved problems in the science of medicine is the causation of Septic Disease. Prof. Austin Flint says "of the special causes and essential nature of those diseases concerning which opinions differ, as regards communicability, we are really ignorant. In place of knowledge we have only conjecture, speculation and theory, and logical proof cannot be based upon these."*

* "Logical Proof of Contagiousness and Non-contagiousness of Disease," N. Y. Med. Journal, Feb., 1874.

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For long ages a dark cloud, its silver lining turned only to the Omniscient, overspread our knowledge of most diseases, but earnest persevering inquiry has penetrated it at many points, and the beautiful light that shines through encourages us to persevere. There is no sealed book in science, and if we labor on, in due time we shall evolve the logic of causation.

Most observers agree that every contagious, infectious and epidemic disease is due to some specific poison, but the nature of the entity and its mode of attack are undecided, whether upon minute particles of living matter—germs of animal or vegetable bioplasm, gaseous exhalations, or some poison produced by septic changes, are unsettled questions.

For the past decade the tide has run strongly in favor of microscopic vegetable or animal organisms. Many distinguished scientists have adopted this theory, but with their most powerful microscopes have not been able to reveal the existence of the organism *prior to certain changes consequent upon disease.* Yet so many of the laws governing the origin and progress of disease seem so readily explained by the "germ theory" that these learned physiologists and pathologists, following in the footsteps of Pasteur, who demonstrated the cause of the silkworm disease, and thence concluded that a process of putrefaction is a process of fermentation dependent upon microscopic fungi, called bacteria, and that these fungi produce the fermentation and putrefaction in the humors and tissues of the living body just as the yeast plant (torula cerevisia) in beer. These changes they believe transform health into disease and are called zymotic (*zumosis*, fermentation) and septic (from *sepein*, to rot). Under the name of septic we will include all the poisons producing contagious, infectious and epidemic diseases.

The germ theory not only seems tempting because it furnishes so many analogies for its support, and seems to explain the origin and progress of many diseases without requiring any careful study of the laws governing vital changes, but like "similia similibus" its therapeia is so simple. According to Cohn, bacteria are a species of plants allied to the mould or smut family. One of his divisions of this genus, the micrococci, he divides, according to their supposed power of

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producing fermentation, into micrococci variole, M. diptheriticus, etc. As when the homœopathist has decided upon the symptom his function ends in prescribing a remedy producing a like symptom, so when the physician adopting this theory has decided upon the particular micrococci producing any special form of zymotic disease, he has only to use the remedy that will destroy the life of that particular fungi. And this is his hope, thus expressed by the distinguished Huxley, in an address before the British Association for the promotion of Science, when concluding from the success of Cohn in demonstrating the emphusa musca as the destroyer of the house fly, and of Pasteur in defining and destroying the silkworm pest, he says "soon we shall be able to demonstrate and destroy the cause of scarlatina, and then the long suffered slaughter of our innocents will come to an end." Let us continue to hope, but let us be sure we build not our hope upon the sand. We will briefly glance at some of the claims of the germ theory.

FIRST. *Microscopic germs are found in septic diseases.* Dr. Kline, in a paper read before the Royal Society in June, 1874, announced that he had discovered the presence of a vegetable organism, a fungi, in sheep pox, and that he had followed its development and growth from about the third day of the disease to complete pustulation, and had satisfied himself that this fungi was the materies morbi of the disease. He infers, hence, that an allied fungus is the cause of small-pox, but three years of careful investigation have failed to demonstrate its existence. He has also carefully investigated the intestinal eruption of typhoid fever, and has succeeded in finding in the intestines, over and about Peyer's patches, several varieties of fungi. These results, he says, were not obtained without much difficulty, because such microscopic examination as it was essential to make in order to arrive at them, are all but impossible, unless the parts are examined immediately after death, and in most hospitals there is a regulation to the effect that *post mortem* examinations can only be made after a lapse of at least twelve hours.

The editor of the British Medical Journal, March 25th, 1876, says, in defending the germ theory, "with regard to the prin-

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cipal object under investigation it should be noted that the facts which have been put together by the most able and experienced pathologists, tend to show that the contagium of enteric fever is due to a specific and living organism, which, when transmitted from a diseased to a healthy individual produces the same disease in the latter, and further that the chief if not the only vehicle of the poison are the ejecta of the infected person. Contagium in the form of a living organism could not be expected to produce infection at once, and the theory that it is organized is *prima facie* justified by the circumstance that a period elapses between the reception of the contagium and the manifestation of the disease, during which the poison apparently lies dormant, but is in reality ripening towards an active condition. According to Dr. Kline no other view of the poison affords any explanation of the incubation period."

We object to this, because there is only inference when proof is demonstrable. Parasites, though ever so minute, if they exist, cannot escape the microscope. They have not been found to exist until *after* the development of disease. As *a cause* they should exist *before* development. Such is the fact in scabies and a few other universally accepted parasitic diseases. The accari may be separated and cleansed from all surrounding matter, and be seen to burrow into the cuticle and originate the disease.

Chauveau and Burdon Sanderson have demonstrated that if a septic fluid, capable of producing toxæmia when impelled into the veins, be passed through a porcelain filter, the filtered liquor may be injected with impunity, while the residue remaining in the filter retains its full toxæmic force. Hence they infer the poison is due to the bacteria. The fact that the poison did not pass through the porcelain was no proof that it was in the bacteria.

Experiments made under the direction of Prof. Robin, and reported to the French Academy in 1873, by M. Onimus, show that if putrefying blood is placed in a bag of animal membrane and immersed for a few hours in distilled water, the water will swarm with bacteria. Inoculation with the blood will produce the usual symptoms, while from the water there

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will be no signs of septic poisoning; and that if the bacteria are destroyed or removed from the blood its virulence is not thereby affected.

Dr. H. G. Pifford found in vaccine crusts several forms of microscopic vegetation, and in every instance similar to those found in the crusts of impetigo contagiosa, while in fresh vaccine lymph he failed to find any similar fungi, or anything beyond some extremely minute molecular bodies together with a few lencothytes.*

Dr. Dalton, in an address before the N. Y. Medical Society, November, 1873, says: "In the germ producing morbid condition there are but few distinct genera, and these are controlled by a few parasitical drugs."

The drugs that are capable of following parasites through the organs and tissues in sufficient strength to destroy them without destroying the body, are, we imagine, "*few*."

Dr. Brinton, Prof. of Materia Medica at St. Bartholomew, an advocate of the germ theory, says: "If we are to cut short the disease we must remove the cause; we must destroy the fungi." But every one who has attempted to treat skin diseases dependent upon the presence of parasitic fungi, knows how difficult it is to destroy these organisms, even when they are lying superficially among the cells of the epedermis. The difficulty is immeasurably increased when they penetrate into the blood vessels and lymphatics, as in small-pox; and the case seems hopeless when they infiltrate the tissues of the intestines, as they do in typhoid fever. For it seems scarcely probable that we shall find a remedy that shall destroy these fungi, protected as they are by a membrane that will resist even liquor potassa, without at the same time destroying the unprotected cells of the mucus membrane."† But if they were of easy access and readily destroyed, is it logical to suppose that the same or allied microscopic germs, differing only in species, applied in infinitesimal quantities to the skin, or even to the most vital organs, should produce such widely different pathological results?

If bacteria or micrococci were the cause of disease, each species should by inoculation produce its particular disease,

*N. Y. Medical Journal, July, 1872. †Practitioner, January, 1875.

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but only a part of the septic diseases are communicable by inoculation.

Dr. Motschuthoffsky, in his report of the experiments in the inoculation of typhus, typhoid and relapsing fevers, during the severe epidemic at Odessa, says typhus and typhoid were not found to be inoculable, and relapsing fever only during pyrexia, and then *without regard to whether spirilla were contained in the blood.**

The more or less constant presence of animal forms during disease does not prove they are its cause. In medicine isolated facts do not prove anything. The physician may wrest from the great book of nature isolated passages and detached sentences in support of his theory or practice, and let him advertise for particular facts and he will garner a fruitful harvest. But some grand truth must underlie and harmonize all facts.

We feel sure the ultimate conclusion will be that bacteria are only incidental to disease and death, and no more their cause than are the higher forms of animal and vegetable life that feed and grow upon dying and decaying animal and vegetable matter the cause of their death and decay.

SECONDLY. *Agents which destroy minute animal and vegetable organisms cure septic diseases, and hence such diseases are produced by these organisms!* Mr. Lester and other distinguished advocates of the germ theory, have abundantly proved the value of antiseptics, both in the practice of surgery and medicine, and that very many agents of this class destroy germ life, but does any discovery yet made prove that germ life produces septic disease? There is no logic in their reasoning. Carbolic acid destroys germ life; carbolic acid arrests disease, therefore germ life is disease or the cause of disease.

As well reason: Carbolic acid arrests chemical decomposition; carbolic acid destroys germ life, therefore chemical decomposition is germ life. Is the power of an agent to destroy fungi or animalcuia to be the sole test of its appropriateness? If this doctrine is true, yes; and so one would think from the reasoning of its advocates. Dr. Blusk, Sur-

*London Lancet, January, 1875.

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geon Major to her majesty's troops in India, says, in speaking of Dr. Brand's cold water treatment, "He and his followers limit their treatment to the action of cold water. A low temperature, it is true, arrests the development of organic matter, but other agents are endowed with the same power to a higher degree. * * * * The subchloride of mercury and iodine are both powerful anti-septics. * * * * Whatever cures does so by its power to destroy bioplasm."*

Truly calomel and the various forms of mercury are sufficiently destructive of germ life, but upon this theory our fathers should have met with unexampled success, when they thought the cure in proportion to the amount of ptyalism. But their success would probably gratify neither the patient or the physician of the present generation.

In Ziemssen's Encyclopedia we find large doses of calomel recommended in typhus and typhoid. We think the average American practitioner will hardly try them on the average American constitution.

It will be found that the destruction of germ life is not the only action of antiseptics, and that many antiseptics are but mildly destructive of germ life, while many agents not claimed as antiseptics are fatal to all forms of microscopic life. It will also be found that the germ theorists select antiseptics without regard to their anti-parasitic properties.

Thus a weak solution of salycilic acid will prevent the decomposition of animal tissues, but will not prevent the growth of mould, while if a small quantity of hydrochloric acid is added to the solution, it will not only prevent decomposition, but also the growth of fungi. Both are anti-septic, the hydrochloric most positively anti-parasitic. The germ theorist gives the salycilic the preference. The sulphates, chlorides and carbolates are all anti-septic, and all to a certain extent anti parasitic, but if their power depended only upon this latter property they might well give place to other agents that possess it more positively. *We think their virtue will be found in their power to arrest certain septic changes, which, with their results, chemical and organic, direct and indirect, cause and constitute disease.*

*London Lancet, January, 1875.

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The French have used and lauded cotton dressings for wounds, and attribute their virtue to their power to filter from the air its bacteria. Others have succeeded equally well with dressings of clay, though they have more rationally attributed their successes to the equal temperature maintained, and to their anti-septic influences.

In the third place, it is said these diseases are dependent upon microscopic life, because their origin, progress and diffusion cannot be accounted for by any other theory. Granted —and neither can they by this. A few months ago I waited upon Mrs. M. in labor. She lived upon the high prairie, with no near neighbors. There was no child-bed fever or erysipelas among my patrons, and none in the neighborhood, yet upon the second day she developed puerperal fever, and barely escaped with her life. Whence came the micrococci? In this and thousands of similar cases they must have been original creations.

Dr. Oldham, of the British service, Dr. Inmann and others believe malarial diseases independent of all causes other than cold damp air. There is no doubt an *exciting cause*, without which the system would often successfully resist the action of malarial and other poisons, but there is as little doubt that specific causes exist which exciting causes devolop into malarial, typhoid, scarlatina and other specific diseases. But what is this disease-producing essence or poison? The earth and air are full of agents, which, introduced into the body, are capable of modifying or disorganizing the living tissues, with which, molecule by molecule, they unite. All the poisonous agencies producing epidemic and contagious diseases, are included in what we term a virus, a subtle poison, often intangible and incapable of demonstration, except by its effects, and always the result, as we think, of certain chemical or chemico-vital changes in organic matter, which changes are sometimes capable of indefinite transmission. These changes may be immediate, or delayed for days or weeks, but are always of the same character with the virus producing them. Every virus is self destructive, prone to decomposition, and by de composition loses its power to harm. Thus wounds produced in the dissection of a recently dead body may produce a fatal

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septicemia, while if the body has undergone thorough decomposition no such disease results. Yet, under certain conditions, a virus may be preserved, as we preserve vacine virus, but if left to itself it ceases to exist.

As we have already stated, a virus is often capable of communicating to the body into which it is introduced, a morbid action, which generates by chemico-vital changes, a virus like itself, as like as the generations of bacteria; for the laws that govern chemical and chemico-vital action are as fixed and immutable and work out as definite results as the laws of generation.

A venom is the secretion of certain glands in a few animals, as the snake and the bee, and though indestructible by decomposition, in its origin and action is not unlike a virus, the one being the result of the disturbed action of excited vital processes, the other of vital changes produced by injury or disease terminating in death. Anger the cobra, and under the excitement it secretes beneath its fangs a fatal albuminoid poison. Bruise a muscle, and in the consequent excitement and death a poison is begotten fatal as that of the snake, and probably albuminoid, and the venom of hydrophobia, like the virus of variola, is capable of reproducing itself throughout an indefinite series.

Dr. Weir Mitchell, in his very thorough investigations,* found the fresh venom of the rattlesnake entirely free from microscopic life, but, if kept moist and warm, undergoing decomposition with intolerable stench, and the appearance of vibriones, rotifera and other minute forms of life. Surely no one will contend that this life was the active principle of the poison and the element of putridity.

In his experiments, he caused a frog to be bitten by a rattlesnake. In two hours it was dead. In twenty-four hours the muscular parts about the wound had undergone putrefaction and were almost diffluent, while the other parts of the frog showed no signs of decomposition. The venom destroyed all vitality in the part bitten, and the power that resists putridity being removed, putrefaction was more rapid than in other

*"Researches on the Venom of the Rattlesnake." "Smithsonian Contributions to knowledge," 1860.

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parts, but the zymosis must be accepted as the result and not the cause of disease and death.

Observers differ widely as to the frequency of the pythogenic origin of contagious diseases.

The editor of the Medical Times and Gazette, England, August 8th, 1874, says: "We are acquainted with places constantly saturated with evil odors of all kinds, including not unfrequently that of decomposing fœcal matter, and yet there is no fever. Horrible though it may seem, waters thus saturated make their way into drinking water, and yet no typhoid fever follows. To excite an outbreak of typhoid fever, something more is necessary, and the question is: What is that something? Without doubt it has been shown by the researches of Drs. Budd and Ballard, and many others, that the special exciting cause is typhoid excreta; and if so in a certain number of instances, there is a strong probability it is so in all. So Dr. Pratt, in a paper read before the Surgical Society of Dublin, and defended by Dr. Stokes, says: "In many instances our peasantry live in a state of barbarism, the farm stock being housed in the same building as the human inmates, the manure thrown into heaps everywhere about the house, up to the very threshold; the pigs and poultry fed upon the kitchen floor, and the refuse of the repast, together with the contributions from the guests—porcine and feathered—swept into a deep pit close by the fireside (called the ash-hole), which is rarely cleaned out until it is filled to overflowing. Yet even in such habitations as these I have found the families hale and sound, strangers to fever and other diseases."

On the other hand it is asserted, as in an article by Dr. Strange in the Medical Times and Gazette, June 20th, 1874: "In ninety-nine cases out of every hundred of enteric fever, the origin is not from any germ or contagin derived from the intestines of some person ill of the same disease, but pythogenic, that is, bred of a poison generated in decomposing or putrid animal matter."

If we were to credit some doctors, of whom there are specimens in nearly every neighborhood, we might believe that typhoid, diphtheria and other grave diseases, were constantly

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occurring without any cause, but every fever, when the brain is narcotized with the debris of excessive destructive metamorphosis or the doctor's opiates, is not typhoid fever. An effect is always the result of an adequate cause; a specific effect the result of a specific cause. There may be immeasurable filth, and intolerable fœtid emanations, and no typhoid, no diphtheria, no cholera. Decomposition, with stench, does not necessarily create disease, but is a wise arrangement of Omniscience, warning us to beware.

Contagious diseases are doubtless most frequently communicated by contagion, yet they unquestionably occur de novo, and if so, those who accept the germ theory must also accept the theory of continuous new creations, and that these creations are forever repeating themselves. Whatever laws may govern microscopic life, since the creation of man, it has not been thus with life in its higher forms. And who can report a case of scabies, a disease of unquestioned animalculous origin, where the accari were original creations? When contagious disease occurs de novo, it is caused by a virus, which when introduced into the body is capable of effecting changes or combinations that will reproduce the same poison and transmit it through other bodies indefinitely. When the disease is simply epidemic, it is caused by a virus produced without the body, and not capable of reproducing itself within it.

A virus is the combination of certain factors generated by the death or decomposition of organic matter, and the absence of one or more of the factors may alter the character of the virus or render it innocuous. These combinations are governed by fixed laws, as fixed as those that cause the thunders to reverberate through the electric-charged heavens, or the simoon to sweep through the heated air of the tropics. We may not understand the combinations any more than those of a burglar-proof lock, but we are sure typhoid fever, yellow fever, small-pox, cholera, etc., are the results of factors existing without and within the body brought together in definite numbers and proportions. When we have solved the factors and combinations we will find the key. We know in all chemical combinations slight variations often produce wonderfully different results. Thus, C_{12}, H_{12}, O_{12}, produces sugar;

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C_4, H_3, O_3, acetic acid ; C_4, H_6, O_2, alcohol. So, slight changes within or without the body, may transform health into disease, and change matter which is innocent into a cause of disease.

I find this thought thus expressed in an article by Prof. George Johnson, King's College, London :* "As every black powder containing charcoal is not the explosive compound which we call gun-powder, so every fetid gas escaping from a drain or cesspool is not laden with the perilous stuff which will excite diphtheria. We believe that a combination of conditions, local and atmospheric, is required to generate or develop the morbid poison, and the absence of any one of these may prevent its formation."

As each portion of the body has its peculiar cell growth and distinctive elements, we would naturally infer that each would have a different susceptibility to septic poisons, and that the poison of one, as rubeola, might act upon the mucus membrane of the fauces and the skin, while another, as typhoid fever, upon the intestinal canal.

On this theory we may account for the fact that most of the contagious ceptic diseases can invade the body but once. Having combined with and destroyed a certain element, the new body being made by and through that in which this element has ceased to exist, and partaking of all its peculiarities, is ever afterward innocuous to that particular virus. But if the disease was produced by living organisms, entering into the body, their destruction would not prevent another invasion by a new generation. You may scratch with the itch as often as you shake hands with the infected, or replant porigo as fast as it is cured.

If septic poisons are generated by the death of tissues, why, it may be asked, does not septicemia and pyemia follow all injuries and operations, as in all there is more or less tissue death ? That the belief is general that it is so generated, and may always follow death, is found in the fact that every intelligent physician is always careful not to expose an abraded surface in a recent post-mortem. But for the wonderful protective care of nature, septicemia would be the terror of life,

*London Lancet, January 2d, 1875.

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Billroth has proved that a granulating surface does not absorb fluids, and is a guardian to the life of the body against a foe ever ready to enter and destroy, and when it does enter through broken granulations, a strong life often thrusts it out before its contaminating touch has produced any serious injury; but when vitality is greatly depressed by the injury, or from crowded hospitals, where oxygen is deficient and septic and other contaminations in excess, we find the medication of nature and art often fail to stay the progress of septic disease.

In whatever form a virus may exist, whether volatile, as malaria, or of tangible substance, as vaccine, it will be found to primarily expend its force upon a particular part of the organism, and some distinguished observers believe all act upon the same plane. Prof. W. H. Van Buren, in his preliminary course at Bellevue, for the winter of 1875 and '76, says: "They act either upon the elements of the blood, as in the reaction between carbonic oxide and the red globules, or they mix with it mechanically, or they disturb the chemical stability of the albuminous compounds of its plasma, as when the cobra poison prevents coagulation of its fibrine, or they set agoing the mysterious changes, by contact or pressure, through the peculiar power which we have ascribed to virulent substances. The resultant action of the blood, thus altered, upon the elementary cells and tissues of vital organs and tissues, comprises the whole pathology of surgical poisons." If they always act primarily upon the blood, so rapid is their action that at times they seem almost from the beginning to effect the great sympathetic nervous system, which, though it may not combine, as does the blood, the elements of life, or *direct*, as does the brain, *performs*, conveying and manifesting every variety of emotion and impression, and carrying life or death to every part of the body.

How do these poisons change the fluids and tissues into which they enter? This question is equally difficult and important. Dr. W. B. Richardson, who has given it special attention for the past ten years, concludes "that the septic poisons exert their deleterious action through the property they possess of setting at liberty the oxygen of the blood in undue quantities in the capillary circulation." By way of ex-

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perimental demonstration he took solutions of per oxide of hydrogen and inoculated them with points of different organic animal poisons—decomposing blood, pus, vaccine lymph, etc., and found under the action of each, oxygen began to be liberated from the solution, while other organic substances, as mucus, would not liberate oxygen. He charged blood with oxygen from the solution of the per oxide, and found these poisons not only liberated the oxygen but caused an increase of 4° Fahr. in its temperature. He found further that these poisons were decomposed in the process of the changes excited, and concludes that the accession of fever is due to the presence of the poison, and that in those malignat and contagious diseases, where death occurs rapidly, with symptoms of asphyxia and convulsions, the liberation of oxygen is sudden and complete, and the blood surcharged with the poison cannot absorb oxygen in the pulmonary circulation.*

The mere power of setting at liberty oxygen in the blood will not account for the different specific poisons producing these special results, or for that action having once occurred being barred forever after. There must be some particular element with which it combines.

But the general correctness of Dr. Richardson's conclusions seem fortified, when we examine the character of the agents that have been most successful in the treatment of these diseases, and find them all positive and powerful arresters of oxidation.

So much time has been consumed that only a brief review can be made of the general principles of treatment. It is of the utmost importance that we recognize septic diseases in their earliest stages, for, while most of them may assume a mild form and require little treatment, they are ever liable to become malignant and fatal; and the peculiar condition of the system, or the intensity of the poison, makes the widest range of difference both in individual cases and epidemics. In the earlier stages the virus may be rendered inert, or eliminated from the system, before it has awakened latent tendencies to disease, and wrought those systematic changes from which the

*London Lancet, April, 1875.

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most heroic treatment may fail to save the patient. Throughout the treatment, while we give due weight to antiseptics, we must take care that the secreting organs are in good working order and no debris allowed to collect, that the temperature, which is apt to be excessive in all septic diseases, is kept within due bounds, that a due supply of oxygen is secured either naturally or artificially, and generally that common sense is brought to the aid of antiseptic treatment.

For several years I treated erysipelas successfully with large and oft-repeated doses of chlorinated tincture of iron, but for the past fifteen have relied almost wholly upon the saturated solution of the bi-sulph. of soda, used both internally and topically, and with this treatment have seen the worst forms of the disease yield promptly and perfectly.

The sulpho carbolate of soda, so warmly recommended for both the prevention and cure of scarlatina, I have carefully tested in a number of cases. My experience, as well as the character of the agent, lead me to expect much from it. In scarlet fever, and indeed in all eruptive fevers, when the heat of the surface is proven to be excessive, I can heartily commend frequent inunctions with an ointment of cocoa butter (theobroma) salycilic acid, or the theobroma alone.

In typhoid fever, I have seen full doses of muriated tincture of iron, given at the outset, arrest the disease as promptly as full doses of quinine arrest a remittent. The chief difficulty in the abortive treatment, is the insidiousness of the attack, the patient often scarce knowing whether he is sick or well, and failing to apply for medical aid until ulceration has occurred in the glands of Peyer; and all who have treated ulceration of the bowels from any cause, know how unwillingly it yields.

Variola is perhaps the best type of the septic diseases, and one that rarely occurs de novo, and it furnishes the best illustration of the efficiency of antiseptic treatment. So fatal has been its history that the name of small-pox is still a terror to every neighborhood. Yet, I have seen it yield again and again to the internal use of the bi-sulp. soda and frequent and thorough fumigations with sulphurous acid gas, and this where there has been no protection from vaccination, and where other

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physicians with other treatment have lost the usual proportion of patients.

Puerperal fever is of unquestioned septic origin, and when we consider the exhaustion of labor, the great change that occurs in the circulation of the mother, that a portion of the placenta, membranes, or a coagula of blood is often retained in the uterus or vagina, where they may undergo septic changes, how readily the sponge-like condition of the uterus, just denuded of its placenta, may take up the poison, and how often there is abrasion of the vaginal walls, we can but wonder that the disease is not of more frequent occurrence. Whenever it does occur we must remember it is a septicemia. The history of medicine is full of new-made mothers who have fallen victims to disease communicated by those who have been called to aid in their hour of trial. Many able gynecologists hold that erysipelas may produce a puerperal fever, and why not? It is only a pyemia, and if inoculated into the abraded organs of the female, under the most favorable circumstances for its development, why should we not expect a puerperal pyemia, though differing perhaps from that produced from the resorption of her own discharges. We should be careful not to carry any form of septic poison to our lying-in patients. In the treatment of puerperal fever the chlorinated tincture of iron, the bi-sulphate and sulpho carbolate of soda, and anti-septics generally, find the same scope as in other septic diseases. We believe gonorhœal and syphilitic diseases are septic, and would more readily yield to anti-septics than to much of the popular treatment.

After surgical operations, when we wish to encourage healthy granulation and healing, salycilic acid will be found best, but if it is desired to slough out dead matter, carbolic acid is preferable.

All septic diseases are largely amenable to public and private hygiene. Whatever the *materies morbi*, it finds in the festering filth that too often accumulates about private residences, as well as villages and cities, the elements from which it reproduces itself with wonderful rapidity. By isolation, by thorough ventilation, by removing or rendering inert accumulating filth, by preventing the importation of the poison, and

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by the use of agents that will destroy its germs, all contagious and epidemic diseases may be measurably arrested or controlled; but alas! too often families, cities and States have been decimated by these terrible scourges through the cupidity, negligence or ignorance of those in charge of sanitary regulations.

With these meager and general suggestions on treatment, we will briefly recapitulate. Nearly all contagious and epidemic diseases are of septic origin. The septic poison is not a living creature, animalculous or fungoid, though these may germinate in the disease it produces and become carriers of the poison, but it is a chemical combination consequent upon disease, death and decomposition of organic matter; that anti-septics destroy it, not by virtue of their destruction of its sometimes carriers, but by the arrest of the chemical changes which it produces. But, we are asked, what is this poison? We ask, *what is bathibius?* There are many things whose very existence we know, but whose essence is unknown. Though the elements and combinations of the septic poison have hitherto eluded our researches, and we are as powerless to answer as to bridge the gulf which separates the organic from the inorganic world — life from death — we believe this is not a question that will forever remain secret with the supreme intelligences, but that it is capable of human solution and of demonstration by logical proof.

CONGENITAL TETANUS — A CASE.

BY T. SINKS, M. D., OF LEAVENWORTH.

Congenital tetanus is so extremely rare, that I presume the following brief report of a case will be of interest:

Mrs. N——, aet. 40, the mother of four children, was taken in labor, at 4 o'clock P. M., November 10th, 1876. The pains were short and slight, recurring about every fifteen minutes, until 12 P. M., at which time the os was fully dilated, and the

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head began to descend. After the second stage began, the pains were strong and frequent, but the progress of the labor was slow, in consequence of a face presentation, and did not terminate until 4 o'clock A. M. of the 11th. The child was well developed, round and plump. The first thing that attracted my attention was its cry, which was short and sharp, as if suddenly interrupted, and followed by mucus rattling in the throat. Upon lifting it from the bed, quite rigid contraction of the posterior cervical muscles was noticed. After being dressed, it became quiet. Nothing of special significance was observed by the nurse until 9 o'clock A. M., when it had a distinct spasm, lasting several seconds, the surface assuming a dark purple color, from the suspended respiration and the consequent retarded circulation. From this time forth there were frequently recurring clonic spasms of the masseters, and of the muscles of the upper extremities, and by night the lower extremities were involved. The spasms of the muscles of the upper extremities alternated. While those of one side were in action, those of the opposite side were quiet. The spasms of the posterior cervical muscles was tonic or persistent. At 4 o'clock A. M. of the 12th, just 24 hours from its birth, death came to its relief.

The mother, during the entire period of her pregnancy, was in excellent health, and noticed nothing peculiar, excepting violent and unusual motion of the fœtus for several hours preceding the commencment of labor.

Upon a thorough review of the history of the case, I feel warranted in the assumption, that the spasmodic action began *in utero*, and also determined the nature of the presentation.

REPORT ON TYPHO-MALARIAL FEVER.

BY J. H. VAN EMAN, M. D., TONGANOXIE, KAN.

After Liebermeister's exhaustive article on typhoid fever, in Ziemssen's Cyclopedia, it seems presumptuous on my part to say anything in reference to that disease. Any one, however,

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who will take the time and trouble to investigate the subject, will be astonished at the great difference in opinion among medical men of standing, in regard to this disease. This is markedly true, when we compare opinions as to the existence or non-existence of typhoid fever in Western Missouri and Kansas. I regret that I am not able to present much, if anything, that is original or new on the subject assigned me at the last meeting of our society. After considering the subject in all its aspects, I decided to pursue my investigation in the following order: 1. Typhoid, its modifications and complications; 2. Malarial fevers; 3. Typho-Malarial fever.

According to Liebermeister, typhoid fever has probably been in existence for hundreds of years, and without doubt well marked cases are on record since the beginning of the eighteenth century, although the disease was not so widely diffused as at present. We find records in the same author of its existence in all parts of Europe. I have been able to find accounts of the same disease in almost every section of the United States, or at least of a form of disease called typhoid fever. And, as will be shown further on, whenever we find a dense population, and conditions favorable to its introduction and propagation, it has raged as an epidemic. These epidemics have been more or less modified by diseases peculiar to the location, either of an endemic character, or produced by the peculiar and transient conditions appertaining to the community attacked by the disease.

According to Liebermeister, the cause of typhoid fever is a specific poison, producing a disease self-limited in character. A person becoming infected with this poison *alone*, will have typhoid and no other disease. In the absence of this specific poison, typhoid fever does not exist. The disease is propagated by infection, and infection only. The infection generally, if not always, occurs through the germs of the disease being swallowed most often in water and milk. Although these points are doubtless correct, I am convinced they are not generally known, or at least accepted by the profession. To demonstrate this, I shall make quotations from various sources.

Dr. H. Kennedy, of Dublin, Ireland (Half Yearly Abstract,

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1873, page 38), gives, as his opinion, that the specific cause of typhoid fever lies more in the constitution of the individual than in the outward causes. He looks upon enteric fever as a disease which derives its peculiar symptoms mainly from the constitution of the patient. He has observed for many years that persons attacked by this type of fever were apt to have a fine skin and high complexion. They were persons who under any circumstances would be considered delicate. This delicacy seems to him to be due to the strumous diathesis, and he thinks this view of the subject goes far in explaining most, if not all, of the peculiarities of enteric fever.

Dr. Larham (London Lancet, July 15, '71), says: "Typhoid fever almost invariably arises from a special poison, contained in the alvine excreta."

Sir Wm. Gull, in a lecture at Guy's Hospital, said: "The theory is that it is connected with germs that get into the blood. We know nothing about the germs, the air is full of them."

John Harley, M. D., F. R. C. P., "Pathology of and relation between Scarlatina and Enteric Fever," Half Yearly Abstract, 1872, from Medical Times and Gazette, December 12, abstract of paper read before Royal Medical and Chirurgical Society, says: "The intercurrence or sequence of scarlatina and enteric fever has frequently been noted, and always attributed to accidental coincidents. In my article on 'Enteric Fever in Reynolds' System of Medicine,' I have expressed my convictions on the subject; and so strong were they in the natural sequence of these diseases, at the time the work was published, that I find in the proof sheets, I have called my contagious variety of enteric fever, 'Abdominal Scarlatina.' I abandoned the term then, because it seemed to me that the evidence which I had adduced to show the close relationship implied in it, was insufficient to convince those whose opportunities of examining the question in detail were scarce, and whose scholastic principles, moreover, would be shocked by such confusion of two diseases, which are generally considered to be specifically distinct. Now, however, that I am enabled to lay before the society such full and complete evidence as is contained in the preceding observations, I will submit this term

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to the profession as a definite description of a disease which the practitioner will occasionally meet with. Nor will I allow this opportunity to slip me, but, in the interest of truth, will ask my fellow-laborers to go with me one step further and to discard those transcendental ideas of enteric fever, which make of it a disease *per se*, and to open their minds to receive what nature will soon teach them, viz.: that enteric fever, and all its attendant phenomenon, may occasionally become a part of almost any other general inflammatory condition, specific or simple."

Dr. Murchison says: "The poison of enteric fever is contained in the emanations from certain forms of putrefying organic matter; pythogenic (typhoid) fever is often generated spontaneously by fecal fermentation."

Dr. G. B. Wood is of the opinion that one element or factor in the production of this disease is a *predisposition* to it, sometimes inherited.

May 1st, 1865, there was issued from the Provost Marshal General's Office, a circular containing a list of questions to the Examining Surgeon in each district. "These gentlemen were all men of standing and repute in their profession." Question 2 was: "General geographical description of your district, with prevalent disease and causes conducive thereto?" So much of the report as is pertinent to my subject, is taken from Medical Statistics, Provost Marshal General's Bureau, Vol. II.

Dr. Dixi Crosby, 3rd District, N, H.: "Typhoid fever is the only malady that prevails to any considerable extent in this region. The specific causes that operate to produce this disease are sometimes obscure, but it is a noticeable fact, especially in the valley of the Connecticut, that extreme fatigue or exposure is almost invariably followed by typhoid fever. * * * A cause may be found for it in portions of this region where it prevails most. I allude to the existence of very heavy river fogs, arising from the Connecticut and its tributaries, at certain seasons of the year."

Dr. B. F. Morgan, 1st District, Vt.: " * * * Typhoid fever, &c., &c. Cause of these diseases general, and supposed to depend on the sudden changes of a variable climate. Locality does not seem to have much influence."

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Dr, C. P. Frost, 2nd District, Vt.: "We have no miasmatic disease, with the exception of typhoid fever."

Dr. Duncan, 10th District, Mass.: "Typhoid fever of a dangerous type is oftener met with on the hills, and in the narrow valleys, than where the country is more open. The miasm is carried by the winds, from the lower grounds, upon the hillsides, which oppose a barrier to its further progress, and it is there condensed (probably) along with the vapor, by the cooler air of night, and as a mist or fog it finds its way into the valleys. Possibly the amount disseminated through the atmosphere, and inhaled, may account for the increased severity of the disease in certain localities."

Dr. F. H. Peckham, 2nd District, Rhode Island: "The dampness and mists which hang about these valleys, in certain seasons of the year, when the days are sultry and the nights cool, are often productive of dysentery and typhoid fever, which are the prevalent diseases."

Dr. J. S. Curtis, 1st District, Connecticut: "Pneumonia, typhoid fever, and rheumatism. The cold nights and warm days of autumn, tend to the development of continued fever."

Dr. H. S. Chubbuck, 27th District, N. Y.: "In Chemung County the diseases most prevalent are of a typhus or typhoid character, the surface being more level, and in some places marshy, emitting, to some extent, a malarial miasm."

Dr. Wm. Carson, 6th District, Pa., (Norristown): "Enteric fever prevails the whole year round, in some localities of the county, confining itself to the marshy regions, and in the neighborhood of the water courses. The fever also spreads to the interior, and in the fall of the year epidemics are quite extensive. The bulk of mortality is from this disease".

Dr. C. H. Humphrey, 11th District, Pa. (Easton): "Pneumonia prevails, * * * also remittent and typhoid fevers are very numerous. These affections of the respiratory organs and the frequent fevers, may be caused by the severe and sudden changes of temperature peculiar to this section of country. The greater portion of this district is very mountainous."

Dr. J. W. Compton, 2nd District, Ky. (Owensburg: "Late in the summer, and during the fall months, bilious intermit-

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tent and enteric fevers prevail, and are ascribable to malarious influences."

Dr. James R. McCormick, 3rd District, Mo. (Ironton): "Typhoid fever made its appearance in Southeast Missouri about ten years ago, since which time it has prevailed more or less every year. During the last four years, it has increased in frequency and intensity. The causes of this are, I think, to be found in the habits of camp life, and the privations to which a civil war subjects a people. In wretched habitations, unwholesome food and mental depression, so commonly seen among the refugees at military posts and garrisoned towns of this State."

Dr. E. Eber, 4th District, Mo. (Springfield): "During winter and spring, typhoid fever, pneumonia, and rheumatism, are most prevalent, caused principally by the changeableness of our climate."

Dr. R. M. McArthur, 6th District, Ill. (Joliet): "Typhoid fever prevails late in the fall and winter months, and seems to be superseding the miasmatic disease, in localities that are under a high state of cultivation. Where thrift and cleanliness abound, I can hardly venture on an opinion as to the cause of this disease, not being able to trace it to any specific poison. Whatever the cause may be, the nervous system is made to suffer in a powerful manner from its effects, and may we not attribute its origin in some degree to the enervating influences of the high temperature of the summer months."

Dr. A. B. Nixon, Middle District, Cal. (Sacramento City): "The prevalent diseases of the valley parts of this district are remittent, intermittent, and typhoid fevers, during the summer and autumn months; they are caused by the malaria generated from the drying up of the overflowed and swamp lands."

Dr. T. H. Pinkerton, Nevada: "During the winter months we have erysipelas, pneumonia, and typhoid fever, and these may be generally attributed to undue exposeure to cold, and the too frequent use of alcoholic stimulants."

We have here the statements of fifteen physicians of good repute, as to the existence of typhoid fever in their respective localities. These localities embrace territory from the Atlantic

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to the Pacific, containing almost every variety of soil and surface; the rugged hills of the New England States, the rolling prairies of Illinois, the mountains of Nevada, and the deep valleys of California, all present types of fever diagnosed and treated as typhoid fever.

The causes assigned for the prevalence of the disease are somewhat varied; but one alone of the fifteen, says anything about the specific poison that is said to produce typhoid fever, and he says he is not able to trace it. Thirty examining surgeons, in all the States loyal to the government, from Maine to California, and from Minnesota to West Virginia, report the existence of typhoid fever, as a prevalent disease in their district, without any statement as to the etiology of the disease. This demonstrates the wide diffusion of the disease, so called, a prevalance only equaled by that of malarial fevers.

Coming to our own State, I find in a report of Dr, J. H Stuart on practical medicine (Transactions of Kansas Medical Society, 1876, Circular Letter), the following question: "To what extent has typical typhoid prevailed?" Seventy-two per cent. of his correspondents acknowledge the existence of the disease in their locality, ranging in frequency from "one case" up to "pretty general in late autumn,"

This demonstrates the fact that nearly three-fourths of our physicians recognize the existence, in this State, of the cause or poison, be it specific or not, that produces true typhoid fever. And this is the point in which we are vitally interested.

Dr. Stuart says: "It will be observed that typhoid fever proper, or typical typhoid, was inquired after, the object being to get the opinion of medical men in regard to the frequency of that disease, in distinction from the continued fever known as typho-malarial or bilious typhoid." From the general tenor of the remarks that followed the reading of this paper, I was led to the belief that the question was based on the opinion, that a fever to be true typhoid fever, must follow the schematic chart of temperature, on page 76, Ziemssen's Cyclopedia, Vol. II; failing to do this it cannot be typhoid fever. The logical deduction from this being that a physician so unfortu-

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nate as to not possess Ziemssen, or at least to have a copy of this chart, cannot diagnosis typhoid fever. My experience and reading go to show that the pure typical cases of typhoid are the exception and not the rule.

In Ziemssen, Vol. II, page 76, we find the following: "The diseases which are produced by the specific poison of typhoid fever, differ a good deal among themselves. Some of these diseases are so serious that life is almost inevitably destroyed by them; others are so trifling that patient and physician are left in doubt whether there was any disease at all. And between these extremes we find every gradation, together with manifold modifications and combinations. Thus, some cases, at first trifling, will terminate fatally; other cases begin severely and get on lightly, and end in cure: others, again, will be attended with such important complications, that in comparison, the original disease seems of little account. So long as the classification of disease was chiefly based on the symptoms, it was impossible to recognize the relationship between these manifold forms of disease. But even now the lightest cases are often called, not typhoid fever, but a febrile or febrile abdominal catarrh, gastric fever, etc.

"If we should undertake to give a picture of typhoid fever, which should be true of all its varieties, we should meet with insurmountable obstacles. We are compelled to take account of the numerous varieties which exist, and to consider the different forms which the disease assumes separately."

Trousseau, Clinical Medicine, article Dothinenteria, gives as varieties: *Mucous*, in which the leading symptoms are connected with the digestive organs. The *bilious* form, attended with an icteroid condition of the face and eyes, nausea, vomiting of green or yellow bile, severe headache, heavily coated tongue, bitter taste in mouth, aversion to food. The *inflammatory* form, attended with high fever at the outset, a full and hard pulse, and moist heat of skin. The *adynamic*, characterized by extreme softness of pulse, stupor, insomnia, quiet delirium, muttering, picking at the bedclothes, paralysis of bladder, or flabby, tremulous tongue, and an abundance of sordes. The *ataxic* form, characterized by disturbance of the nervous system, more or less violent delirium, accompanied by

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cries, vociferations, disturbed sleep, nightmare, hallucinations of every kind, convulsions, tetanic contraction of the limbs, strabismus, picking of the bedclothes, spasmodic jerking of the tendons, and sudden exaltation, followed by as rapid a collapse of the muscular power. There is intense fever and violent headache. He gives a case where a young woman died on the fourth day, from this variety of fever, and says: "The autopsy disclosed one of the most confluent dothinenteric eruptions which I ever saw,"

Of the anatomical characteristics of this disease, I do not consider it necessary to speak, as there seems to be no division on that part of the question. Coming to the question of diagnosis of idiopathic fevers, if the general doctrine taught by John Hunter were true, viz: "That no two of them could exist in the same person at the same time," our labors would be very much lightened in that direction. I believe that the once popular doctrine, that diseases are separate entities, and that no man can have two of them at the same time, has now few if any adherants.

In diagnosing the well marked case of typhoid fever, *typical* if you please, there will be no trouble if the practitioner will take a little time in forming his conclusions. These uncomplicated cases, are, in my judgment, very rare in the great Mississippi valley. Consulting the literature of the subject, we find that the symptoms commonly considered pathogomonic of typhoid fever, are rarely, if ever, all present in any single case of the disease; and there is strong evidence in support of the opinion that a man may have his system contaminated by this specific poison, and fever be the only symptom present during the whole course of the disease.

More than this, we have no mean authority which declares that there may be true typhoid poisoning and no fever whatever. Vallin says (Archives Generales de Med., Nov., 1873): "Typhoid fever, in rare cases can arrive at advanced periods of its evolutions, and reveal itself suddenly by grave and even fatal accidents, without the temperature, as determined by the thermometer, sensibly departing from the limits of the normal state." He relates a case of severe intestinal hemorrhage and of peritonitis from perforation, resulting in death, in which no

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fever had existed previous to the occurrence of these accidents. Liebermeister doubted the existence of typhoid poisoning without fever, when he first went to Basle, holding, with Griesinger, the view that there is no such thing as typhoid without fever. On page 123, Ziemssen's Cyclopedia, Vol. I, he says: "It was not long, however, before I had some personal knowledge of cases answering to the above statements, and ascertained that in Basle they were of frequent occurrence." It is claimed by many, and the idea has been advanced in this society, and found ardent supporters, that our so called typhoid fevers are not typhoid, from the fact that the rise of temperature is sudden and rapid. On this score we have the statement of Jurgensen, of Tubingen, who observed epidemics at Kiel, in 1865–66–68.

His diagnosis was confirmed by post mortem examination. In 74 out of 87 cases, the onset was sudden, the temperature reaching 104°, as early as the middle of the second day. The fever lasted from ten to sixteen days, then declining rapidly, reached the normal range in from 22 to 24 hours. Convalescence was protracted; relapses frequent. In the light of all this evidence, what becomes of our typical cases, on which so much stress is laid? Methinks that future invesgitations will demonstrate that we have yet much to learn in reference to this disease. Instead of looking upon it as a disease that will uniformly exhibit the same train of symptoms under all conditions, we will be compelled to admit that climate, locality, season, and the peculiar combination of circumstances belonging to each epidemic, or sporadic case, may and will modify the disease in very many different ways. In one locality or epidemic, we find lenticular spots as a frequent and prominent symptom; in another, intestinal hemorrhage; in another, diarrhea; in another, the typical curve, and in another, a very wide departure from it. Admitting, as all do, the wide diffusion of the disease, and granting the validity and truthfulness of the above views and statements, we are naturally and inevitably led to the belief, that, in time, many varieties and sub-varieties of the disease will be understood, and their differential diagnoses made possible. Of the treatment of simple typhoid fever, I shall at present say nothing.

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My remarks on malarial fever will be comparatively brief. The specific poison that produces it is unknown, as yet. The disease has been known since the earliest history of medicine, and there is perhaps no disease, that, in its well-marked types, is more easily diagnosed, or that is more amenable to treatment. It exists in every quarter of the globe, outside of the frigid zones; is always an endemic disease, and exists under the greatest variety of soil, topography, altitude, and climate. With its simple and typical forms, as intermittent, remittent, and pernicious fevers, we have at present little to do. No physician, worthy of the name, need make a mistaken diagnosis. They have few, if any symptoms, that would lead a careful practitioner to confound them with typhoid or typho-malarial fevers. It remains, therefore, to differentiate between continued fevers, arising from malarial infection alone, and those arising from the combined influence of the malarial and typhoid poisons. The clinical history of remittent fever, such as I have been called upon to treat in this State, is a history of headache, bad taste in mouth, foul yellow tongue, anorexdie, constipated bowels, high colored urine, aching limbs, and a general lassitude, for several days, preceding the severe chill which usually ushers in the fever. Patients express themselves as having felt aguish. The chill is followed by intense fever. The temperature (axillary) rising to 104° or even 106°, accompanied by severe gastric disturbance, as indicated by nausea and vomiting, great thirst, but no power to retain anything on the stomach. Pulse hard and full, sometimes very rapid. Bowels usually still constipated. Urine high colored and scanty. Intense headache and pain in lumbar region. More or less active delirium, seldom stupor. Tenderness over stomach and spleen. The fever usually lasts from three or four to seventy-two hours, and is followed by a distinct remisson. My treatment of such cases is quinine to the amount of grs. xii to xx, in doses of grs. ix to x, every 2 or 3 hours, commencing as soon as the fever begins to subside, as indicated by sweating, or the thermometer. Most of the patients have already taken physic when I see them. If not, and constipation exists, I usually prescribe C. C. pills, U. S. P. As a febrifuge, I generally use tinct. aconite, R. gtts. v, every 3 or

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4 hours. Such cases usually terminate in from five to ten days, but it is always necessary to guard against a return of the disease, in the shape of common ague, for some weeks. During the ten years of my professional life, I have no recollection of a case of this type that did not end in recovery. These cases would come under the first grade, according to Hartz. The same author says the second grade has a more continued course, with only here and there marked remissions, especially at the beginning of the attack. They may soon assume the typhoid or adynamic type, and in addition to this may have, as local complications, dangerous nervous symptoms, delirium, with epileptic, tetanic, paralytic, or comatose seizures, also with algid and dysenteric conditions, with pneumonias, parotitis, and splenitis. The onset is generally sudden, with a severe chill, headache and delirium. According to Griesinger, the disease, when uncomplicated, ends in from seven to fourteen days. This is the inflammatory type of Drs. Dickson and Watson, and, in my experience, is not a common type in this State.

The third grade of Griesinger is the pernicious remittent of Flint, and the congestive of Drs. Watson and Dickson. It is, I think, rare in this latitude, and is not likely to be confounded with any other type of fever mentioned in this paper. The authorities, so far as I have been able to consult them, do not seem to be in accord as to the anatomical lesions of remittent fever. The liver, spleen, stomach, and duodenum, seem to be the organs more particularly affected.

Early in our late war, that is in the campaign of 1862, the hospitals were filled with fever cases of a type different in course, symptoms, duration, and termination, from either the ordinary remittent or the typhoid of the Northern States. This was more notiseable in the army serving on and south of the Potomac, although I have personal knowledge of the same type of disease in the army serving in the vicinity of Corinth, Miss. This disease, in the sick list of the eastern army, was often designated as Chickahominy fever. In 1862, a board of medical officers was directed to revise the form for sick report. At the suggestion of Dr. J. J. Woodward, U. S. A., a member of the board, the term typho-malarial fever was selected to des-

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ignate the type of fever referred to above. This fever was generally believed to be a result of the combination in each individual case of at least two specific poisons, viz.: malarial and typhoidal, also modified in a certain proportion of cases by a scorbutic taint. This term was placed on the sick report without any comment or explanation, and in the year following its introduction, 23,346 cases were reported. The following is compiled from a table given in Dr. J. J. Woodward's address on typho-malarial fever, delivered before the International Medical Congress, September, 1876. I wish to say here, that I am largely indebted to this address for the facts and figures hereafter given.

The number of cases of and deaths from the several forms of camp fever, reported to the Surgeon General's office, during the war, were, typhous, 2664 cases, with 958 deaths; over 36 per cent. of this type had a fatal termination. It is worthy of remark, that among the colored troops attacked by this fever, there was a death rate of a little above 87 per cent., truly a terrible fatality. Typhoid fever, 77,648 cases, 6,374 deaths; death rate a little over .08 per cent. Common continued fever, 11,898 cases, 147 deaths; a mortality of .01$\frac{2}{10}$ per cent. Typho-malarial fever, 57,400 cases, with 5,360 deaths; a death rate of a little more than .09 per cent. Remittent fever, 317,135 cases, 4,855 deaths; a mortality of .01$\frac{1}{2}$ per cent. The present point of interest in these figures, is the per centage of fatal cases in typhoid and typho-malarial fevers; indicating, in my judgment, first, the intimate relationship of the two diseases; second, that typho-malarial fever is more dangerous than simple typhoid.

The type of disease under consideration is no new thing. We find, as a matter of historical medicine, that armies serving in sections of country intensely malarial, have always suffered from a complicated form of fever; a hybrid, if you please, arising from the union of the malarial and typhoid poisons. Sometimes it is a combination of spotted typhus and malaria, again it is abdominal typhus and malaria that we find decimating great armies.

The following instances of these mixed fevers are given in Dr. Woodward's address: The campaign of the French against

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Naples, in 1528, when the disease was a combination of malaria and spotted typhus, in this instance, very few of the French army lived to return to their homes.

In 1566, during the Hungarian campaign of Maximillian II, the Hungarian fever, so called, almost destroyed his whole army. The same thing occurred in the Italian army, during the seige of Papa, 1597. Again it makes its appearance in the German army on duty in Hungary, in 1661. The medical history of every army remaining for any length of time in malarious regions, is a history of a mixed form of fevers. Further instance of a similar combination is found in the Gottingen epidemic, lasting, with more or less intensity, from 1760 to 1762, and described by Roederer and Wagler as "Morbus Mucosus." "This mucus fever was a continued fever, which, in severe cases, was often prolonged beyond the twenty-first day, sometimes until after the thirtieth, though fatal cases often perished as early as the ninth day." (Woodward's address, page 20.) In 1809, the English army, serving in the Netherlands, was decimated by fevers of the same mixed type, commonly spoken of in the books as the Walcheren fever. Dr. Davis, who wrote of this fever, is quoted by Dr. J. J. Woodward, *loc. cit.*, page 25, as follows: "At the beginning, it assumes the quotidian, tertian, double tertian, or quartan type, but the most common of all was the double tertian. It became, however, as it progressed, a continued fever of a typhoid type, with muttering, delirium, small rapid pulse, dry, black tongue, sordes, covered teeth, fœtid odor, and black discharges from the bowels. This fever was often associated with dysentery, the characteristic lesions of which were found after death." Davis also says: "The ileum and jejunum were frequently interspersed with tubercles, inflamed and ulcerated in different parts." Page 26, *loc. cit.*, he quotes Virchow as saying: "We should be very careful in acknowledging typho-malarial fever as a special group of diseases," and yet, in the same essay, while contending that the prevalent fever of the German army was simply abdominal typhus, as proved by repeated post mortem examinations, made at Berlin, he says: "Nevertheless abdominal typhus affords such numerous diversities in its course, that it

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is in the highest degree imperative to preserve every precaution in the interpretation of individual cases. Especially does the admixture of the malarial element, which has shown itself active, by numerous cases of intermittent fever, confuse the picture of the so-called normal course of typhus, in a sometimes very deceptive manner."

Opinions of this character might be further quoted from various foreign authors. For example, Herman Schmidt's division of the epidemic fever that prevailed in Europe in 1827, into two classes or varieties, typhus intermittens sub-intrans, and febrois intermittens typhosa. The first being a combination of the two poisons, malarial and typhoid, the typhus preponderating. In the second class, the malarial poison predominating. Coming to our own country, Woodward quotes Dr. Drake as follows: "When remittent fever terminates fatally in one or two weeks, a certain amount of subsultus, a dryness of the tongue, and intestinal hemorrhage, are sometimes present, although no typhus fever may be prevailing in that locality. And this brings us to inquire, not into the distinctive peculiarities of these two forms of fever, but into their combination into the hybrid or mongrel diathesis, which results from the joint impress, in ever varying proportions, of the causes which produce true typhus and true remittent fevers."

Dr. Dickson, in his Elements of Medicine, teaches practically the same thing. Dr. Geo. B. Wood, Practice of Medicine, 6th edition, Vol. I, page 377, in speaking of this admixture of specific poisons, and the results, uses the following language: "Since the last edition was published, this complex affection has been much more prevalent than before, probably because great numbers of young men, engaged in the armies at the age when the predisposition to enteric fever is strongest, have been in an unusual degree exposed to the joint action of the causes of the two fevers: to that of enteric fever, in the almost unavoidable filth attendant upon great encampments; and to that of bilious remittent, or intermittent, in the low grounds from which miasmatic effluvia are so abundantly extracted in the Middle and Southern States, in the latter part of summer and in autumn." Flint, in his Practice, teaches,

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that the so-called typho-malarial fever is a disease arising from the combined action of malaria and the typh poisons, sometimes the typh having the greater prominence, and at others the malarial.

Dr. Woodward (essay, page 34), says: "In the group of cases in which the malarial phenomena predominate, the disease began as a simple intermittent or remittent fever, of quotidian, tertian, or quartan type, the most frequent form being a simple or double tertain; but after a week or ten days, the fever assumed a more or less completely continued type, with many of the phenomena characteristic of typhoid fever, such as diarrhea, abdominal tenderness, meteorism, muttering, delirium, subsultus tendinum, dry furted tongue, and the like. But even when the typhoid phenomena were most pronounced, some of the most characteristic of them were often wanting. Thus, sometimes, there was no diarrhea at all, but constipation instead. The characteristic rose-colored eruption, was generally entirely absent, gastric disturbance, hepatic tenderness, and an icteriod hue of the countenance, were much more generally present than in simple typhoid." He tells us a large proportion of these cases recovered, a result, he thinks, largely due to the free use of quinine. At autopsies of fatal cases, attended by diarrhea, no lesions were sometimes found, except an intestinal catarrh. In other cases the intestinal mucous membrane was inflamed in patches, the intestinal glands enlarged, prominent and inflamed, sometimes constricted at the base; in others, the so-called shaven beard appearance was present. Page 35, *loc. cit.*, he says: "Between the simple inflammatory enlargement of the closed glands * * * and the more luxuriant process which occurs in ordinary typhoid fever * * * every possible transition existed." Page 36, *loc. cit.*, reads, "the group of cases in which the typhoid phenomena prodominated, more closely resembled typhoid fever. They began more like it. They ran their course like it. Like it they refused to be cut short by quinine. After death they presented the characteristic lesions of the patches of Peyer. But even these presented, also, many phenomena which did not belong to ordinary typhoid fever. First of all, I must emphasize the manifestation of an unwont-

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ed tendency to periodicity. This was not merely an exaggeration of the daily exacerbation and remissions, which we all know as a part of the history of the early stages of typhoid fever. The exacerbation assumed, with great frequency, a tertian or double tertian type, which has no parallel in the ordinary typhoid history. With this tendency to periodicity, the gastric and hepatic distnrbances common in remittent fever, were often associated in the early stages, and ordinary ague paroxysms often occurred in the convalescence. The autopsies, in these cases, disclosed the ordinary lesions of typhoid fever. During my earlier studies, I believed that I had observed certain pecularities in the character of the ulcers in these cases, by which they might be distinguished from the lesions of simple typhoid. A larger experience * * * has convinced me that this opinion was premature. I renounce it as erroneous. There is really nothing in the lesions of Peyer's glands, in these cases, to distinguish them from ordinary cases of typhoid fever."

Following out the same plan of investigation for typho-malarial, as in typhoid fever, I shall present facts and opinions drawn from various sources. In the reports to the Prov. Mar. Genl's. office, referred to on a previous page, we find the following:

Dr. Spalding, of Greenupsburg, Ky., says: "Along the Ohio river, and principal streams passing through this district, the prevalent diseases are intermittent, and remittent or bilious remittent fevers, and such diseases as are produced by, and are consequent upon malarial causes. What is commonly called typhoid fever, here, has seemed to me to be a remittent fever of a typhoid grade."

Dr. James D. Robinson, 14th district, Wooster, Ohio, says: "Typho-malarial fevers (pure typhoid fever being of rare occurrence), pneumonia, and rheumatism, have the ascendency in the winter and spring months. In the neighborhood of large streams and small lakes, we frequently have dysentery and typho-malarial fever, endemic and malignant."

Dr. L. M. Whiting, 17th district, Alliance, Ohio, says: "The portion of the district lying upon the Tuscarawas river and its tributaries, is more or less subject to annual visita-

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tions of zymotic disease; the form ordinarily assumed being periodic fever, but frequently presenting the typhoid character, in addition to the continued progression of morbid phenomena denominated fever, the victims presenting the peculiar rose-colored spots, diarrhea, epistaxis, tympanites, &c., which are adjudged pathognomonic of typhoid fever."

Dr. A. Lewis, 2nd district, Marengo, Ill., reports as follows: "Bilious fevers and agues do not prevail to as great an extent as they did some fifteen years since. Enteric or typhoid fevers have been prevailing to some extent, and, in some districts, have become epidemic, but are always marked with symptoms of miasmatic influence."

Dr. L. Hubbard, northern district, Marysville, Cal., after describing forms of malarial fevers, says: "At other times the fever assumes an enteric form. The tongue is covered at first with a light brown coat, which is soon partially cleared away, when the whole surface becomes dry and parched. The pulse is frequent, varying from 90 to 130 in a minute, and a peculiar tremulousness also pervades the whole muscular system. The patient is occasionally flighty, particularly after waking from sleep. Sometimes the delirium is considerable. He talks incoherently, or forgets to complete his sentences. The bowels are usually torpid, but occasionally a dysentery sets in, with distressing tenesmus. The abdomen soon becomes tympanitic and tender to the touch, affording a crackling sensation to the fingers on pressure. In fatal cases the mucous membrane, and particularly the mucous follicles of the intestines, are found seriously diseased, insomuch that the system fails to receive sufficient sustenance to maintain animal life; or death may follow from local congestion, induced by nervous depression."

Dr. T. Sinks, northern district, Leavenworth, Kan., says: "All diseases are more or less complicated with malaria. Pure typhoid fever is a very rare disease, though typho-malarial fever is of frequent occurrence."

Dr. J. M. Best, 1st district, Paducah, Ky., says: "Another matter, which has engaged my attention oftener practically, and which has excited in me more surprise than any other of a general character, is the numerous mistakes that have been

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and are being made in diagnosis here and in the West, by taking many of the common diseases of the country, mainly those of malarial origin, for *typhoid* fever, and treating them on the expectant plan. For example, numerous cases occur of enlarged liver, and chronic partial congestion of that organ, with the blood both in the liver and general circulation laden with vitiated elements of bile and other impure particles, and where remittent fever, whether slight or considerable in degree, is added to make up the sum of the disease. This, in the absence of all the characteristics of typhoid fever, is taken for that disease. The blood in typhoid fever is also perverted, but it is of a dissolved character and does not admit of speedy depuration, as in the above mentioned condition. The humoral element, in the example given, is ignored, as well as the diseased state of the liver, which constitutes its main part. Often, in such cases, after quantities of quinine have been given, without the fever being conquered, or the condition otherwise improved, a rash and heroic mode of reasoning is instituted. It begins and is stated in this way: It is obstinate, like typhoid; it will not yield to quinine, therefore it must be typhoid."

The following ideas are compiled from replies to my circular letter:

Dr. Hiddens, of St. Joseph, Mo., says: "I have seen in my practice in this city and adjoining county, many cases of typhoid fever, and many, also, which I took to be a complication or mixture of typhoid and malarial fevers. They are certainly very similar, but I think not quite identical. Their symptoms, duration, and treatment, are very much the same in my practice, except that the value of quinine and arsenic are more apparent in the malarial form, and perforations less common. Death, I think, is more likely to take place suddenly and unexpectedly also in it. I have also noticed that typhoid, simple, is more common in the city. In fact, I do not remember ever having had a case of typho-malarial fever, in a resident who had not been out of the city. But in the river bottom, and near some lakes, typho-malarial fever is, or has been, the common type."

Dr. T. C. Craig, of Easton, Leavenworth County, Kansas,

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reports 60 malarial, 18 typho-malarial, and 4 typhoid cases; all of the typho-malarial cases recovered. The average age, in this type, was 17 years. Four had epistaxis, 8 had diarrhea, 6 had constipation, tympanitis, hepatic and splenic tenderness, sordes and delirium. Minimum duration, 8 days; maximum, 22 days; average, 16 days. Treatment, quinine and other anti-periodics. Of his typhoid cases, all had headache, tympanitis, iliac tenderness and gurgling and sordes; three had diarrhea; one had constipation, with splenic and hepatic tenderness; one had hemorrhage from bowels, and lenticular spots; two had delirium; one low muttering, the other active. The shortest case ran its course in 18 days, the longest, 30 days. Two died, and two recovered. In one of the fatal cases, pneumonia set in on the fourteenth day; in the other, death resulted from general peritonitis following intestinal perforation; the accident occurring on the sixth day of apparent convalescence. The highest temperature, in these cases, was 106°.

Dr. Porter, of Kansas City, says: "The specific poison which causes typhoid fever, has never found its way to our locality;" also, "that malarial fevers have been very uncommon in that city, for the last two years."

Dr. T. Sinks says he has not seen a case of typhoid or typho-malarial fever, since January, 1876.

Dr. H. P. Woodward reports one case of typho-malarial fever, coming down slowly; lasting 28 days. Had sordes, delirium, deafness, subsultus tendinum, &c. Treatment, tonic and supporting. Case ending in recovery.

Dr. Cushenbury, of Girard, Kansas, reports having treated about 20 cases of typho-malarial fever, with two deaths; one from hemorrhage of bowels.

Dr. Gephart, of Valley Falls, Kansas, has never seen a case of typhoid fever in this State. In some seasons, however, remittent fevers take on an asthenic form, with typhoid symptoms.

Dr. F. M. Johnson, of Platte City, Mo., has not seen a case of typhoid fever in ten years. He considers that in the absence of the specific cause of typhoid fever, typho-malarial fever is an impossibility. He gives as his opinion that the

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continuous fevers that have been under his observation, have been caused by the abuse of purgatives, or some intercurrent inflammation.

Dr. Brock thinks the name typho malarial fever superfluous, and tending to perpetuate a pathological idea, the correctness of which is, to say the least, problematical. He has cases of intermittent and remittent fever which assume an aggravated form, answering to the names of typho-malarial and typhoid fevers. The forming stages of his remittent and typho-malarial fevers are similar. Has treated no typhoid case, within the last year.

Dr. Lee, of Springdale, Leavenworth county, Kas., reports that he has treated within the last year 87 cases of malarial fever: 21 typho-malarial, and 5 typhoid; all recovered. The longest duration of typhoid and typho-malarial cases, 21 days; shortest, 7 days; average, 14 days. Treatment, as well as I can make out from his report, supporting and expectant.

Dr. Grover, of same place, reports 28 malarial, 18 typho-malarial, and one typhoid case. Three of his typho-malarial cases died on the 15th, 18th, and 26th days, respectively. Commenced treatment with a purgative, afterwards gave blue pill, with opium and ipecac; also food and stimulants. His typhoid case had pneumonia as a complication, and ended in recovery.

Dr. Phillips, of Tonganoxie, Kansas, reports one case of typho-malarial fever, terminating fatally, on the 32d day, from asthenia; age, 23; treatment, supporting and strongly anti-periodic. Had remittent symptoms in the beginning. No remittent symptoms during the last ten or twelve days, but only those of typhoid. Has seen two cases of simple typhoid, within the last three years. In one of these cases the diagnosis was confirmed at the autopsy.

Dr. Shoyer, of Leavenworth, reports two cases of typho-malarial and one of typhoid. The highest temperature, in his typho-malarial cases, was $104\frac{1}{2}^{\circ}$; treatment, quinine and nutrients. Both recovered. Says they commenced as remittent, but in a few days became marked as cases of an individual disease. His typhoid case was imported from Philadelphia. In both types, delirium was active. The highest

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temperature, in the typhoid case, was 105½°. The fever run its course in 23 days, the patient recovering.

Dr. Rumbold, of St. Louis, reports no typhoid cases, but comments on the laziness of physicians in reporting their cases, a statement we can fully indorse.

The deductions I am led to make, from the mass of evidence presented in this paper, and from other investigations on the questions involved therein, are:

First, that the term typhoid fever is used in a loose and general way, by a great number of physicians, and a good deal of confusion is the result.

Second, that no two diseases are more widely prevalent than typhoid and malarial fevers.

Third, that in whatever locality both specific poisons may exist, there will be found a mixed or hybrid type of fever, which is neither purely typhoid nor purely malarial, the morbid effects of both poisons modifying each other to a greater or less extent, in each individual case.

Under the second of these conclusions, so far as the State of Kansas is concerned, the almost unanimous testimony of the profession is that there is no portion of the State entirely free from malaria. If, therefore, we can establish the existence of the poison of typhoid in the State, we have the conditions necessary to the existence of the disease commonly spoken of as typho-malarial fever.

The testimony of about seventy-five per cent. of the physicians of the State, who have been consulted on this question, is in favor of the existence of typhoid fever in our midst. In Iowa, 413 deaths from typhoid fever were reported in the year ending May 31st, 1860. Army medical officers report its existence, in a malignant form, among the Mexicans in Southern Colorado, New Mexico, and Arizona. The disease is stated to prevail in Southwest Missouri. Those who deny that the typhoid poison has its existence in our midst, only needing favorable surroundings to develop the disease, admit having met and treated sporadic cases, imported from the Eastern States.

Admitting that the germs of the disease are found in the alvine avacuations, unless more pains and care were taken than

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is usually the case, each imported sporadic case would become the focus for the generation of typhoid fever. But, says the anti-typhoid advocate, our climate is so healthful, our balmy breezes so salubrious, our supply of ozone so great, that all these imported alien typhoid germs are at once destroyed. Such may be the case, but I, for one, doubt it very much. What evidence we have on the question, goes to show that typhoid fever once established in a community is very rarely eradicated, although months, and even several years, may intervene between epidemic and even sporadic cases. The poison, in the absence of favorable surroundings, may remain quiescent for weeks and months, yet retain all its vitality and virulence, ready, like a smoldering fire, to be fanned into fury by the first favoring breeze. In support of this point, I quote from Liebermister, Ziemssen's Cy., Vol. I., page 56: "A villager, who had contracted typhoid fever at Ulm, returned to her native village, where typhoid fever had not existed for many years. The excrements of this person were thrown on the dunghill. Several weeks later, five persons were employed to remove this dunghill. Of these five four were attacked with typhoid fever, and one with gastric symptoms, and swelling of the spleen. The excrements of these five persons were buried deep in the dunghill. Nine months later, two persons were employed in completely removing this dunghill. One of these was attacked with typhoid fever and died of it." The same author, on page 59, gives an account of the village of Lausen, in which only occasional sporadic cases had occurred, since the passage of the allied troops in 1814. No cases at all had occurred for seven years. In 1872, an epidemic broke out which attacked nearly 17 per cent. of the inhabitants between August and October. If the cause of the disease can remain in abeyance for an indefinite length of time, it is easy to account for its presence in Kansas, particularly along great routes of travel. There seems to be at least two theories as to the etiology of the disease known as typho-malarial fever; one, that the obstinacy of the fever arises from an engorged and inactive liver; the other that it is a form of malarial fever in which there is an inflammatory and catarrhal condition of the intestinal mucous membrane, this condition being,

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in a certain proportion of cases, the result of undue purgation. The reason given for the absence of benefit, in these cases, from the use of quinine is, that the diseased condition of the mucus membrane prevents the absorption of the quinine. If this be true, the physician who fails to administer quinine, hypodermically, in such cases, is, to say the least, extremely careless of the interests of his patient.

On the question of treatment, I shall here say but little. If, from the general symptoms in given cases, we are led to diagnose simply a catarrhal form of malarial fever, I would suggest, that if any purgative be used at all, it should be a very mild one, preferably one of the salines; also the free use of bismuth and quinine; the latter drug had probably best be given by the hypodermic method. If you are fully satisfied that you have to contend with a mixed fever, produced by the combined effect of the malarial and typhoid poisons, eliminate, as promptly as possible, the malarial part of the disease, by giving full doses of quinine, or some other prompt antiperiodic, and then treat your typhoid as may be necessary. I am lead to believe that the long continued use of quinine, in large doses, in this form of disease, is detrimental to the patient.

OBSTETRICS.

BY C. C. SHOYER, M. D., LEAVENWORTH, KANSAS.

In preparing this article, I had in view that you did not wish for a plagiarized edition of some standard work on obstetrics; neither do you expect anything new or original. I have, in view of the foregoing, confined myself to such topics as we are all familiar with, and are of daily occurrence in practice. The heading must not mislead, as I shall speak of other matters besides obstetrics, though nearly allied. First, as to purging in cases of protracted labor. I have several times been called to cases where the patient has been in continuous labor for two or three days; where the pains were

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strong and nothing abnormal; here an ounce of oleum ricini has worked charmingly, the medicine and labor striving for precedence.

Does quinine provoke labor pains? This question, I think, can now be answered in the affirmative, through the concurrent testimony of many observers. I have ceased prescribing it to pregnant females with malarial fevers, and diseases having a malarial basis, for the reason that it has caused miscarriage in a number of instances. I have also seen it of service in restoring the catamenia, suppressed from cold or other cause.

ABORTION—PREVENTION OF WITH MEDICINE.—I have so far treated only two pronounced cases, one is full of practical interest, and I will relate it. The patient is the mother of two girls, aged respectively, seven and nine years, both in good health. The parents are healthy. The mother miscarried five times, during a period of perhaps five or six years; one miscarriage was at the sixth month, and the others at from four to five months. I ordered rest in bed at the critical months; enjoined coition, and did all else I could think of, without success. I could not discover disease in the fœtus, but thought the placenta was not quite healthy looking. This I could not verify, as I am not a skilled microscopist. I prescribed R. potass. iodidi, 3 drachms, extr. ergotæ, flu., 1 oz., aquæ puræ, 3 oz., mix, teaspoonful in wineglassful water three times a day, before meals. This medicine was continued about four months, with occasional intermissions of a week, when she became pregnant, and it was discontinued. She went to full time, and was safely delivered of a male child. There was no sign or symptom of syphilis in parents or children, and consequently the iodidi could not have acted as it does in syphilis. I give facts, having no theory to offer.*

Chloroform I never administer in ordinary confinements, except at the request of the patient. I always give it in versions, and other obstetrical cases, except forceps cases; here I prefer the intelligent co-operation of the patient.

Speaking of the forceps, I will mention a good rule to

*Since this paper was read before the society, May 9th, 1877, I have seen in Tilden's Jour. of Mat. Med. that M. Tarnier and M. Blain, of Paris, Fr., recommend potass. iodidi in the same way and same cases. I first used the remedy nearly two years ago.

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observe, and that is, to bring the hips of the patient well over the edge of the bed, so that you can depress your forceps and push the *perineum well back.* I remember the case of Mrs. W., of Leavenworth, a primipara, who was in labor five days, under the care of two physicians of another pathy. Not wishing to be rude, I made an examination, and advised the forceps. I waited in an adjoining room, and in about three-quarters of an hour one of the doctors came to inform me that it was impossible to apply the forceps, and that it was a case for embryotomy. I had no difficulty in delivering, with the forceps, a living child, and certainly was not over ten minutes doing it; the other parties had neglected to do as I advise above. I always use the long curved forceps of Prof. Wallace, of Philadelphia, and I invariably deliver the head. Excellent authority advise the forceps slipped off when the head is at the ostium vagina. I prefer to complete the delivery, and thus avoid, at times, being obliged to reapply them.

Placenta prævia I have seen four times; three times in my own practice, and once in Philadelphia, under the care of a teacher of obstetrics. Two cases necessitated immediate delivery, of which one was the Philadelphia case. These two women died a short time after delivery. The other two cases, owing to the comparative moderate hemorrhage, were allowed to progress naturally. These two women recovered. In all cases the children were dead. In the cases that recovered, ice applications and the like were of no avail; but enemas of tr. opii. deodorata, minim xv, in aq. frigidæ, 1 oz., every hour, till patient felt drowsy, or pains became regular, answered admirably. In a case of triplets, accompanied by hemorrhage, the same remedy did well, with this difference: I had turned the clots out, keeping my hand on the uterus, had secured a good contraction, when at once, and in despite of my best endeavers the uterus filled with blood, and became nearly as large as before belivery. I here applied the binder to the abdomen, without emptying the uterus again, as my patient was so very weak; administered the opiate enema, and waited and watched. There was no more hemorrhage, the uterus contracted, and in a few days the blood came away as grumous blood.

PUERPERAL PERITONITIS.—I attended Mrs. K., a midwife,

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during an attack of erysipelas of the face and head. Before exfoliation was completed, that is to say, before the skin was quite sound in appearance to the eye, she attended five cases of confinement, and in each case puerperal fever resulted. I attended three of the cases, of which two died; the other two I did not attend, but followed them out, and they died. In all of the cases consultation was had. My special object in referring to this matter is, to show the contagiousness of erysipelas in the puerperal state, which is now generally recognized and admitted. In this instance the patient was discharged as cured, and yet contagion followed.

TOO LONG NURSING.—This is a matter of great moment to mother and child. I have taken the child from the breast, in several cases, during the months of July and August; during dentition, and early in life, before that process commenced, and have had no occasion to regret it in this healthy climate, where pure milk can be easily obtained at all times. How it would do in less favored places, is not for me to inquire. I have also not found it necessary to use one cow's milk, the mixed milk of a number of cows answering every purpose. I have, also, not insisted on the child being bottle fed, many children doing fully as well, if not better, who are spoon fed; and where this can be done you avoid the trouble of unclean and sour milk bottles from the remains of the previous meal. The drying up of the milk is made much of, and many remedies and methods are urged to effect it. Now, I find nothing as effectual, in the majority of cases, as drawing the milk off; I mean emptying the breasts by suction, either by the mouth or pump. This requires to be done, perhaps, for a week, rarely longer, when the breasts become flaccid. Any one trying this plan will find it cleaner than belladonna and the like. As to infant's food, other than the mother's milk, I find nothing equal to bread and milk, fed with a spoon. I have tried granum, papoma, and the like prepared foods, and none of them answer as well, or are as readily taken. During diarrhea, and when the stomach is irritable, rejecting everything, I find Liebig's food answers better. Liberal sweetening is necessary in giving cow's milk, but I do not add water after the child is four months old. In weaning, take the child

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promptly from the breast, let there be no nonsense about it; feed the child frequently on bread and milk and it soon ceases to care for the maternal nourishment. All the foregoing, of course, applies only to healthy children, whose mother, owing to various causes, are unable to nurse them. There is a food I came near forgeting: it is condensed milk, and a splendid thing it is in the absence of pure country milk. It sometimes agrees better with an irritable stomach than anything else, and during a journey is very convenient, as also in extremely hot weather, where the means of keeping milk are not readily accessible. The prescribing of opiates to infants, meets with very general condemnation by the profession. I do not share in this condemnation, and cannot find a substitute; in fact there is no substitute. I am speaking of inflammatory intestinal diseases especially, though I give opium in all diseases of children, accompanied by pain. I have in mind a case of enteritis in a child a year old, caused by drastic purgatives, where nothing gave relief till Dover's powder in grain doses was ordered, and continued to a cure. In prescribing opiates for children I never order tr. camphora compositus, as you are never certain of the amount of opium; some samples not affecting in drachm doses, and others dangerous in such doses. I much prefer tr. opii or pul. ipecacuan comp. These are more stable preparations and less bulky, and I may venture to say, more efficient.

I need hardly say, in conclusion, that it is almost impossible for us on the frontier, to furnish food for thought, or enrich our profession by original investigations, or weave fine-spun theories. We are expected to excel as physicians and surgeons; to be oculists and aurists, and, in short, to be skilled in all the specialties, and know as much and perform what is usually divided up among specialists in our large cities. At our annual meetings it is expected of us that we furnish an amount of original matter which would be considered ample for a lifetime by an European savant. Let us rather strive to render perspicuous our labors as practical men.

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REPORT ON MATERIA MEDICA AND THERAPEUTICS.

BY DANIEL C. JONES, M. D., TOPEKA, KANSAS.

INUNCTION.

I shall first call your attention to the Therapeutic agents which we shall have to deal with, viz.: fatty substances.

The fats and oils belong to the same general class, and are composed of the same elements, but in various proportions; the characteristic distinction between them seems to be that the fats are solid, at ordinary temperature, while the oils are more or less liquid. But while this classification is made, for convenience of description, they are properly to be considered as forming a single group. An oil may be a liquid fat, or a fat a solid oil.

Both fats and oils are composed of carbon, hydrogen, and oxygen, as their ultimate elements, but differ essentially in the proximate principles which they contain. They are very combustible, and burn with a brilliant flame. They are insoluble in water, but most of them are soluble in alcohol or ether, and many in both liquids. They are obtained from both vegetable and animal bodies. Lard is the fat of the hog separated from the animal tissues, it is softer and more fusible than tallow, containing a larger proportion of oleine and less stearine and margarine. The oleine obtained from it constitutes the lard oils of commerce. Suet is the fat obtained from several herbiverous animals, as the ox, sheep, goat, etc., which when heated for a time, to separate it from the animal tissues, yields tallow. It is composed of stearine, margarine, and oleine, and a small portion of another substance, which has been called hircine. The suet of different animals seems to differ little, except in the relative proportion of these substances contained in them.

Secondly, we shall notice the membranes and organs to which our remedy is to be applied.

The skin is the principal seat of the sense of touch, and surrounds the exterior of the body; it consists of two layers,

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the derma or cutis-vera, and the epidermis or cuticle. The epidermis is an epithelial structure which forms a defensive covering to the surface of the true skin, being accurately molded on the papillary layer of the derma.

The principal glands which we shall have to notice, are the sebaceous and sudoriferous, or sweat glands. The former are found in all parts of the skin, but are most abundant in the face, and in those parts which are exposed to friction. The largest sebaceous glands are those found in the eyelids, under the name of meibomian glands. The sudoriferous glands are found in almost every part of the skin, and are situated in deep pits, in the deep parts of the corium, or in the subcutaneous areolar tissue, surrounded by a quantity of adipose tissue. The office of the sebaceous glands is to lubricate the integument and the hairs, to keep them soft and pliable, and to prevent drying up by too rapid evaporation. The secretion of the meibomian glands, by being smeared on the edges of the eyelids, prevents the tears from running over on the cheeks, and confines them within the cavity of the lachrymal canals. The office of the sudoriferous glands is principally to regulate the temperature of the body.

Now, returning to our essay, first, we find, on page 439, (Wood's Practice of Medicine), he recommends inunction, in the treatment of scarlatina. The entire surface of the body, with the exception of the face and scalp, is rubbed with a piece of fat bacon, morning and evening. Austin Flint also speaks of the use of inunction, in the treatment of scarlatina, page 799, Practice of Medicine. He says extreme pruritus of the skin is in some cases a source of much annoyance, preventing sleep and increasing the constitutional disturbance. He applies lard to the surface of the body, the rind of bacon being used for this purpose. He says it relieves in some cases at least the pruritus, and diminishes febrile excitement. In Churchill's Treatment of Scarlatina, he speaks of inunction, page 642. He uses the fat of bacon morning and evening, coating the entire body, except the face and scalp. This may be done, says he, at the commencement, and continued until desquamation in complete. Various are the good effects said to result. The prevention of cold, relief of the itching and

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brittleness of the skin, promotion of its functions, and of the oxidation of the blood, preventing and diminishing infections.

Inunction has been used in almost every age as a preventive. in the various eruptive infections. It is applied by anointing the parts of the body exposed to contact, as the penis, to prevent syphilis, the hands, to prevent itch, etc.

Fats are used to form most of the ointments used in medicine, and in many of the plasters, blisters, suppositories, cerates, etc. It is also used in many forms of lung disease, by coating over the anterior portions of the chest, and in throat affections, by forming an external protection from cold and the various changes of temperature. In my opinion it will yet form one of our most valuable remedies in low grade fever, and other diseases of an asthenic type. By coating the entire external surface, it will act in three ways: first, by restraining the rapid evaporation which always accompanies fevers; second, by acting as a nutriment, by being absorbed and taken into the circulation; third, by acting as a protection to all extraneous causes, such as heat, cold, moisture, etc.

We find that in many portions of India, the natives anoint themselves regularly, in certain seasons of the year, to protect them from the ravages of jungle fever; and of later years, the British soldiers, who were exposed by guard duty at night, have resorted to the same means, by direction of the medical corps, and statistics show a very great reduction in the mortality lists. Carbonized oils are now being recommended by most of our modern surgeons, as a dressing in sloughing wounds produced by crasia of the blood, and cosmoline, still later, which has not come into general use, but is destined to take rank among our first surgical dressings. I have used the cosmoline — which, by the way, is made from crude petroleum — in several cases of sloughing wounds and sores, and believe it to be the best unguent I have yet found. It corrects fetor, and has a soothing effect, and is superior to carbolized oil, as a protective agent, by more perfectly excluding the atmosphere. There are many other diseases in which unguents are useful, but as this is only designed for a short report, I shall close.

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A FEW NOTES ON SYPHILIS.

BY W. W. COCHRANE, M. D., ATCHISON, KANSAS.

The old axiom that doctors differ, is pre-eminently exemplified in the disease of syphilis. Its origin, its history, has aroused the most elaborate and diverse opinions. Its theory and practice have induced manifold experiments, bitter arguments, and widely varied conclusions. Its results or sequels, so mysterious and versatile, have caused the most talented and scientific writers to radically change their opinions. Such is its protean character, that the student, after reading exhaustively on the subject, finds that each and every proposition enunciated has arrayed for and against it such eminent talent, that he becomes bewildered and stands appalled at the difficulty in maturing either a theory or practice.

This hydra-headed, protean-shaped monster, has been stalking abroad over our universe, probably from time immemorial. To the present time it has been worrying, depressing and decimating its victims. When once it inserts its fangs into the human system, it maintains its sway with unrelenting constancy and unending surety. Insidiously entering the system, it lies torpid for a time, as if accumulating strength to throw its venom throughout the whole fabric. From the smallest globule to the most complicated organ, integument, tissue, muscle, tendon, ligament, membrane, fluid or bone, all are alike liable to its destructive influence.

The history of the origin of this disease is shrouded in obscurity, there being no evidence of its first invasion of the human system. The negative proposition that it was not derived from the animal kingdom, is supported by the fact that no animal has been known to be affected with it, hence our Darwinian ancestry were exempt from it, and it is not hereditary in the same sense as that of total depravity.

The pathological effects are so numerous and varied, that any allegation may be sustained by clinical facts, as well as rational argument; hence pathological writers have, to a great extent, confined themselves to the question of the duality of

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the original or specific cause. For a long time the dualist maintained his position with argument and apparent facts, and deemed his position secure and impregnable, but recently, the opposition, after elaborate scientific experiments, have produced ample clinical facts, which tend to prove that this duality consists more in result than in origin. A chancre may result in either a hard or soft ulcer. A hard ulcer may become a soft one, and a soft one may become a hard one. Identical sequelæ may arise from either. These sequelæ may arise without any chancre. Inoculation with pus from secondary sores, may produce either indurated or soft ulcer. The same sore will infect different persons with either kind of sore. Diseased semen may be absorbed in the vagina, and infect the female system, producing chancre or sore. A nurse may be infected by an infant, and she may have chancre of either kind on the vulva, and infect by coition. These facts, attested by ample clinical evidence, and authenticated by eminent writers, would seem clearly to demonstrate the unity of this virulent poison.

The immediate hereditary results of this disease is one of its most lamentable characteristics. The facts have been clearly established, that a mother may transmit the disease to the fœtus, at any stage of gestation. A father may transmit it to his offspring at any period for ten years after inoculation. The father may infect the mother, the child inoculate others, and whether grown it could congenitally transmit the poison, is undetermined, but it is strongly suspected that it may be visited upon the children to the second and third generation.

The diagnosis of syphilis is without a parallel in its difficulty. Writers differ widely, and such is their negative evidence and argument on each and every point, that we are forced to conclude that there is at least no pathognomonic signs or symptoms at all of this disease. The last hobby, inoculation, after raising our hopes to a high point, has been recently decided to be impractical if not fallacious. The poor victim, on his first suspecting that he has been inoculated with the disease, seems intuitively to realize his appalling situation. His mind dethroned, he imagines every imaginable disaster; frightened, bewildered, he is incapable of deciding even on his

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physician. He rushes to the nearest one, and is thoroughly crazed by being informed—if he meets an honorable one—that it is utterly impossible to diagnose the case, until a sufficient time—about a month—has elapsed, to produce secondary symptoms, and that unless he will agree to a year's varied treatment, he will not be accepted as a patient, and then he will not be certain of immunity for ten or more years, and that his wife and progeny may be infected at any time within that period. M. Ricord says that the only way to decide on a cure is, after a year's treatment, to inoculate from an indurated chancre, and if it produces a syphilitic chancre, it is evidence of cure, but if it does not specifically infect, it is not a cure, and continued treatment is imperative.

The honest physician, desiring to do justice to his patient, and at the same time preserve his integrity and reputation, finds himself in a sad dilemma, on encountering each and every case of this pestiferous affection. If he is candid, the applicant will almost certainly—"see him again,"—employ some competitor, and for months will reiterate that the honest physician at least knows nothing of this disease, as he had acknowledged as much to him. If he is noncommittal, and treats his case for months, he is sure to be blamed for not at first telling the whole truth. He must indeed be a paragon, who, in this age of scepticism, so filled with charitable meddlers, can succeed in keeping his patient under control for a year. If he does, and temporary success attend him, his patient, always in doubt, is silent on the subject, lest he may be mistaken, or he may divulge the secret. He is sure to suspect unnecessary delay, and is dissatisfied, so that the doctor makes no friends, not even the grave, that potent practitioner's shroud.

In the published articles on the treatment of this affection, we find many descrepancies, obscurities, and great diversity of opinion. At the present time, few readers will find it possible to mature a definite or conclusive course of medicine. Mercury, so long vaunted as a certain and only cure, seems to be altogether doubtful; indeed, the crusaders against this time-honored medicament, had driven its advocates to the wall, in all diseases except this. But recently, their position on this

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exception, is generally considered pregnable. That syphilis may be treated successfully without mercury, and with fifty per cent. less relapses, has been acknowledged by the most eminent writers, and some eminent syphilographers. That it has any curative powers at all, has been credibly contested; and the theory that it simply modifies the system, so as to give greater effect to other medicine, or the vis medicatrix natura, seems to be now acknowledged by the most eminent writers. Sarsaparilla, the old English hobby, has been declared perfectly inert, and abandoned. Iodide of potassium has been recently brought forward as the successful rival of mercury, and seems destined to supersede it. As yet, however, there is much difference of opinion as to what stage of the disease, or under what condition of the system, it is appropriate. Syphilization has been tried, and decided to be impracticable, if not entirely unnecessary.

Such is the ruinous effects of this disease, that it would seem clearly the duty of every member of our profession to endeavor to find some more reliable medicine, which would counteract the effects of this baleful complaint. Deeply impressed with the idea, at an early period of my professional career, I employed an indigenous remedy with such success, that I feel warranted in saying that it has proved superior to mercury, in all stages of syphilis. Phytolacca is but little known, at least but few medical writers have recorded their experience with it, but it will be found to be a more potent alterative, if it has not a more specific influence on the poison of this disease than mercury. It gives more decided vigor to the great depurator, the liver, as well as stimulates the glandular system generally, in a much more direct manner. In doses of eight to twelve drops of the fluid extract, my experience has been large and varied, and in no instance have I regretted giving it, and I much desire all the profession to use it freely in any disease requiring an alterative. I am satisfied they will not be disappointed; and the profession will, on learning of their success, be induced to use it more freely; a medicine more effective, and far less injurious to the general system than mercury.

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PECULIAR CONDUCT OF A CASE OF LABOR.

BY H. O. HANAWALT, M. D., ARVONIA, KANSAS.

Was called May 17th, '76, at 9 A. M., to see Mrs. H., in her second labor, having been in attendance at the first, which presented nothing unusual. Found the os but slightly dilated as yet, and the pains being only moderate, I left her, to return again at 2 P. M. The membranes were still intact, and contained a large amount of fluid. Slight pressure during uterine contraction ruptured them, when I found the occiput directed to the right acetabulum. Pains now increased in force and frequency, but with little advance, the head evidently undergoing much compression at the superior strait. At 11 P. M. the head began to advance, and soon commenced to emerge from the vulva. When one-half, or a little more, of the head had escaped, it ceased to advance, although the contractions were unabated. The cause of this, I determined, could not be resistance from the soft parts, but must be explained in the position of the shoulders at the superior strait. It was a full half hour before the head was disengaged, which was accomplished almost entirely by pushing the perineum back over the chin. The head then presented the appearance of being drawn inwards. I now made traction on the head, but for twenty minutes there was apparently no change. About this time I noted that the chin seemed to be directed somewhat more to the right thigh, and almost immediately after I felt assured that rotation was taking place. It was certainly not more than fifteen minutes from the time I first noticed the change, until the face was at the pubes, having been towards the coccyx, when first disengaged. No signs of life in the child. Woman in fair condition, but very nervous. Gave chloroform, and then had to exert all my strength to deliver the body. Took away the placenta, when the uterus contracted well. The weight of the child was, probably, fourteen pounds. The woman made a good recovery, being up about the usual time.

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Of course the principal question involved in this case is, how was the rotation brought about? It will be remembered that the occiput presented to the right acetabulum, and that in rotating the head came around facing the right thigh.

In searching all the literature to which I have had access, I have failed to find anything which throws light upon the subject. If the case be not unique, it is certainly rare, and I have in consequence been moved to report it.

TYMPANIC OTORRHEA.

BY J. S. LAURENCE, M. D., EMPORIA, KANSAS.

The subject of inflammation, acute or chronic, of the tympanum, is generally regarded as of no great importance, and that nature is quite competent to withstand any disease, or repair any injury, that may occur to this cavity.

The ear is divided into the external, middle, and internal parts. Chronic inflammation of the middle part, or tympanum, is the subject of this paper.

It is a small, irregular cavity, situated just internal to the tympanic membrane, which forms a greater portion of the outer wall. The inner wall is a thin, bony septum, between it, and the labyrinth. The lower wall is also bony, and very thin indeed, often almost transparent. The internal jugular vein lies just beneath this floor. The upper wall varies in thickness like the lower, but is soft and porous, with many perforations for the transmission of nerves and blood vessels. In the anterior wall is the entrance of the Eustachian tube. The tympanum is lined with mucus membrane, which is continuous with that of the Eustachian tube, and throat. In the posterior wall are numerous small cavities, called mastoid cells, also lined with mucus membrane. The bony wall, between these cells and the brain, is exceedinly thin, and may, in places, be entirely wanting, the mucus membrane and duramater coming in contact.

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Taking into consideration that we have here a small cavity, lined with mucus membrane, with but a single opening for the admission of air or the escape of fluids, the location of a majority of the aural diseases, we see the great pathological interest of this wonderful cavity.

Acute inflammation of the tympanum is generally developed suddenly, and runs a rapid course. It is usually secondary, as an extension from the throat and nasal passages, through the Eustachian tubes. The small openings through these tubes soon become closed by the swelling, and instead of the mucous and pus passing off, rapidly accumulate, and after causing intense suffering, appear in the external meatus, resulting in tympanic otorrhea.

Tympanic otorrhea implies that the discharge comes from the tympanic cavity, caused originally, as we have seen, by acute inflammation of that cavity, and also implies a perforation of the membrane.

It is from the very nature and construction of the parts involved, self-sustaining. The cavity being constantly filled with pus, that can only escape through the external meatus, keeps up the inflammation, and prevents it from healing.

Deafness, to a greater or less extent, is produced, according to the amount of injury done to the walls of the cavity. It was formerly supposed that a very small perforation of the tympanic membrane was sufficient to produce total deafness, but it is now known that the entire membrane may be destroyed, and yet a fair amount of hearing remain. The disease may continue indefinitely with discharges of pus from the external meatus, for years. As the suppuration continues, more and more of the tympanic membrane is destroyed, until a mere rim or trace of it remains. If the opening is not very large, or of long standing, the membrane will be reproduced, and the opening closed, after the suppuration ceases. Under unfavorable circumstances, the disease may extend through the thin bony wall to the labyrinth, to which part the auditory nerve is exclusively distributed, and produce total deafness at least; or, through the mastoid cells, in the posterior wall, extend to the brain, and produce death by inflammation of its membranes; or throug the inferior wall by caries of the bone,

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and perforate the internal jugular vein, and produce fatal hemorrhage.

Although we seldom have cases of death reported from tympanic otorrhea, we have good reason to believe that they do occur more frequently than is generally supposed. The meningitis being an extension of the long continued inflammation of the tympanic cavity, the attention of the physician not having been called to it, the original or primary disease would readily be overlooked.

Dr. C. B. Chapman, formerly Professor of Chemistry in the Miami Medical College, of Cincinnati, related to me a case of meningitis which he thinks was undoubtedly an extension from the tympanic cavity.

Dr. A. D. Williams, of St. Louis, an aurist of large experience, recently gave me the history of a case of meningitis, occurring during treatment for tympanic otorrhea, that he has no doubt was an extension of this inflammation from that cavity.

The very close proximity of the walls of the civity to the membrane of the brain. make an extension of the inflammation to that part a source of danger and anxiety.

With appropriate treatment, the prognosis is favorable. The suppuration will cease in time, and the improvement in hearing will be very considerable, and the injury allowed to extend no further.

The pathological condition in tympanic otorrhea is chronic inflammation and suppuration of the mucus membrane of the tympanum, and the treatment must be directed to the reduction of this suppurative inflammation.

The first important step in that direction, is perfect cleanliness of all the parts involved. The pus must be washed from the external meatus, washed and forced twice daily from the cavity, so that no part of it remains covered with pus. Unless this is done thoroughly, our treatment will be unsuccessful. We must see by *direct* examination, for, in this disease, to see is to know ; and we can know in no other way, either as to the cleansing, the condition of the parts, or the application of the remedies.

We must depend mainly on local treatment ; and whatever

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remedies are used must come in direct contact with the whole suppurating surface, down through the Eustachian tube into the throat. If the perforation in the tympanic membrane is very small, a little pressure will be necessary to force the fluid in, for the medicine *must enter the covity*, or the treatment will fail.

The application should be made twice daily, until the suppuration has mostly disappeared ; then once a day for a time; then once or twice a week, gradually discontinuing the treatment.

The remedies most in use are nitrate of silver and sulphate of copper. Other astringents may be used. The compound nitrate of silver should be used in from ten to forty grains to the ounce of water. Of this, three or four drops or sufficient to cover the whole suppurating surface—and no more—must be used at a time. The sulphate of copper may be used in from five to twenty grains to the ounce of water, in the same way.

If the patient is anemic, or scrofulous, they demand constitutional treatment, as indicated ; if not, internal medicine is not required.

A case in illustration, especially of the destruction of the tympanic membrane, and I leave the subject for the present, hoping, at some future time, to report to this society some interesting case of aural disease.

Frank F., fourteen years of age, and in good health, had, when two years old, acute tympanic inflammation, while having scarlet fever, resulting in abscess and perforation of the membrane, and tympanic otorrhea, which has continued until within the last year. On examination, I found both tympanic membranes destroyed, and suppuration filling up the cavity and external meatus. His hearing was very imperfect, but much better than we would suppose possible with such destruction of membrane, and so much suppurative inflammation. He could hear the tick of a watch, when placed in close proximity to his ear. It required the utmost patience and perseverance in the treatment of this case. I treated him for several weeks, twice daily, with a solution of 30 gr. comp. nit. silver to an ounce of water. Then at longer and longer intervals,

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occasionally omitting the nit. silver and using a weak solution of sulphate of copper, or some other astringent. The suppuration became less and less, and at times ceased entirely, but returned from exposure, with a slight acute inflammation. It has been about a year since treatment began. The discharge has ceased, and the whole suppurating surface healed, and notwithstanding the tympanic membranes are completely obliterated, he can hear the tick of a watch two feet from his ear. Although his hearing is, and always will be imperfect—for the tympanic membrane will not be reproduced—he is relieved of the very offensive discharge, and the danger to life or total deafness is many times diminished.

RUPTURED PERINEUM.

BY C. V. MOTTRAM, M. D., LAWRENCE, KANSAS.

A case of perineal rupture, with sloughing of vaginal walls, caused by impacted fœtal head and forceps delivery, resulting in almost *atresia vagina*, was reported by me at the last meeting of this society. The lady had become again pregnant, and anxious to have a living child, and the question arose as to the practicability of safe delivery, at full time, and was fully discussed. The majority were in favor of the inducing of premature labor, as the only safety for the woman.

Prof. Todd, of Kansas City, visited the case with me, and we decided to allow gestation to go along to full time, and when labor came on, resort to such surgical means as might be necessary to effect delivery.

Her general health was good during the summer, though she was several times threatened with miscarriage, having very strong uterine pains, and twice, considerable "show."

On the 25th of February I was called, and found her having regular pains, but not strong. They continued through the day and night till four o'clock a. m. of the 25th, when they seemed to flag. I then administered a full anodyne and left,

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She slept well for some hours. The pain returned in the morning, and I was called about ten o'clock, and found them recurring with regularity and force. I sent for Drs. Stuart and Morse to assist me. The cicatricial ring seemed firmer than at the commencement of gestation. I could not introduce my index finger beyond the second joint. The pains continued strong, and I could feel the patulous os through the ring; but there was no dilation at three o'clock. I then put the patient under the influence of chloroform, and divided the cicatrix, making several incisions completely through it on each side. I then used Molesworth Dilator, using warm water to distend the rubber tube. With this instrument I dilated the ring to a trifle over two inches. The pains continued strong during the anesthesiæ, and I waited for them to bring down the fœtal head. The dilation went on to the size of half a dollar, the water sack presenting during each pain, but the head did not engage in the superior strait. After waiting some time and no progress seeming to be made, I ruptured the membranes, evacuating the waters, and found the presentation to be occipito-pubic, the occiput impinging upon the pubic arch. The pains continued energetic after the evacuation of the water, but there was no advance of the head, as the force was spent upon the pubic bones. I then made strong pressure upon the abdomen, just above the pubes, while with two fingers in the mouth of the womb, I made pressure upwards and backwards, and to the right, against the fœtal occiputs, and the head was dislodged from its resting place on the pubic bones, and entered the superior strait, making the rotation become the left-occipito-acetabula position, or first, of Baudelocque. *Very little* progress was made during the next two hours. The patient was again anesthetised and forceps applied. The descent was slow indeed, but finally the head became engaged in the bones. During the pains I applied *all* my strength, making traction on a line corresponding to the axis of the strait, increasing the power by the leverage of the forceps, moved from side to side. In this manner half an hour or more passed, in the passage of the head through the bones; finally it entered the inferior strait, the occiput beneath the arch of the pubes, and the vertex sweeping the perineum,

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which was put upon the stretch and thinned out like tissue paper, threatening laceration of the floor of the pelvis, and what remained of the recto-vaginal septum as I had feared. To prevent this impending calamity, I enlarged the outlet of the passage, by two *deep* incisions, one on each side of the vagina, through the vaginal wall, labia-minora, and into the labia-majora. These relieved the tension of the perineum, permitting the delivery without accident at 5 o'clock p. m. No considerable hemorrhage occurred from the incisions.

The child was "still," but pulsation was strong through the cord. I immersed the body in a vessel of warm water, inflated the lungs, kept up artificial respiration, and did not sever the cord till natural respiration was established, the pulsation continuing in it. Just how much time was occupied in resuscitating the child I do not know, but it seemed a long time. After removing the placenta, I closed up the two last lateral incisions with metallic sutures. They healed mainly by first intention. I kept the vagina well cleansed with carbolized water and salicylic acid. After four days I inserted a sponge tent, and kept one in the vagina for the most of the time, till the incisions through the cicatricial ring had healed. The *ring* disappeared, and the vagina is capacious enough for most purposes.

From later examinations, I am satisfied that while the woman is large and seems to have an ample pelvis, she really has a *deformed* one, the promontory of the sacrum *projecting unusually*, materially lessening the antero-posterior diameter of the superior strait, the ischii also being abnormal.

In consequence of the great pressure to which the head was subjected, in being dragged through the contracted passage, there resulted paralysis of one side of the face. The child cried only on one side, and one eye stared wild and open, without winking. After a few weeks the palsy passed away, and the child is now pretty, active, and healthy.

I am under many obligations to Drs. Stuart and Morse for their very efficient assistance in conducting the case to a successful termination.

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REPORT OF A CASE OF PARALYSIS.

BY DR. H. S. ROBERTS.

The pathological specimens which are presented for your examination, were connected with a, to me, very interesting case, and as there were some things connected with it, not fully understood by me, I will give it rather fully, and leave it for your discussion.

On the 16th of September last, I was called to see Mrs. Pierce, aged seventy-five years, who had an attack of paralysis on the left side, the day previous. Found her with entire loss of motion and sensation upon the entire left side, affecting her speech, and impeding mastication and deglutition. On inquiry, found that she had been feeling unusually well for more than a week previously, having ridden fifty miles in a buggy to visit frends, and walking each day afterwards quite a distance, being very active. She had suffered none from pain in the head, acute or otherwise, had all of her life time been very free from headache, had led a very active life up to October, 1863, when she fractured the left leg at the ankle. The attending physician called it a dislocation, after reducing, left it, and there was malformation, which impeded her walk considerably, although not to the extent to require a crutch. Each leg had been broken at the ankle joint previously, each giving perfect union.

My treatment was iron and strychnia internally, with brisk rubbing of the afflicted side, and a nourishing fluid diet. From time to time she was reported to me as being quite comfortable, could speak more readily, and conld swallow with less difficulty. Just ten weeks afterwards, I was again called to see her, with a fracture of the right humerus; the fracture, which was at the middle third, was produced while making a change of clothing; her daughter, who was assisting, stated that the pressure upon the arm could have been hardly a pound weight. As she was considerably emaciated, I could give the arm a minute examination, and could discover no change in the form of the humerus. The fracture was reduced, the arm dressed

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with light pasteboard splints and simple roller bandage, and placed upon a pillow.

At this time my attention was called to the head; that the skull seemed to be absorbed. On examination, I found an oval opening in the frontal bone, about one inch above the center of the right orbit, where the skull was absorbed for about three-fourths of an inch by one inch. On the anterior superior portion of the left parietal bone was a circular opening, one and one-half inch in diameter. Above and posterior to this were three smaller openings. The opening on the frontal bone was depressed, but through all of the others protruded masses, which through the scalp, felt like brain substances, pulsation being very distinct.

I gave the opinion that the animal matter of the bones was being absorbed, or rather not supplied, as the reason of the arm being so easily broken; that this condition of the system was produced by the brain irritation; that the paralysis of the left side came, probably, from pressure on the right hemisphere of the brain, at the point of the opening in the frontal bone.

At the same time, I discovered a small tumor at the angle of the lower jaw, on the left side. I gave the opinion that disintegration of the bone was going on there, and that ultimately there would be a fracture at that point.

My opinion given regarding the fractured humerus, was, that it would never unite by bony union. As she was a lover of new milk, I directed it to be given to her freely, and she subsisted upon this, almost exclusively, until her death, which took place January 22d.

Four weeks after the arm was fractured, she moved it, lifting the hand to her head; afterwards using it freely. When informed of this, I told the family that the union was probably ligamentous.

As soon as her death was announced to me, I requested leave for a *post mortem* examination. This was granted, to the extent of the fractured arm and the brain.

On January 23d, twenty-four hours after death, assisted by Drs. Robinson and Little, I held a *post mortem*. We found complete bony union of the humerus, although it was a mere

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shell, for several inches on each side of the fracture very much honey combed. That this should have taken place, while disintegration was evidently going on through the entire bony system, seemed to me quite remarkable, and especially in one so old. On taking hold of and endeavoring to move the lower jaw, I found it fractured at the point before mentioned. We next raised the scalp, over the head, posterior to the ears, and on retracting the parts, we found an opening through the frontal bone, at the point before mentioned, and on the left parietal bone we found four tumors of the look and consistency of brain substance. On lifting the calvarium we found attached to the dura-mater six tumors; one corresponding to the opening in the os frontis, four to the openings in the parietal bone, before noticed, and one about one inch by one and one eighth inches in size, at the posterior inferior angle of the left parietal bone, which, by pressure in growing, had produced absorption of the skull to the outer table. These tumors were from one to three-eighths of an inch in thickness, with distinct perpendicular edges, somewhat more full in the center than the margin. They were of a strawberry red appearance, and seemed quite vascular. The largest tumor, which was at least half an inch thick, had produced a depression in the left hemisphere of the brain, corresponding to its thickness; none of the others had made any appreciable depression.

Thus far, we had found nothing to account for the paralysis in the left side. There was no sign of softening of the brain at any point. Removing a portion from the right hemisphere, it was found healthy and of proper consistency; another slice and the same found; another, and the knife laid open an abscess, containing half an ounce of pus, on a level with the base of the right lateral ventricle, and separated from it only by ventricular wall; the ventricle itself contained about six drachms of serum. The left hemisphere was perfectly normal throughout, excepting the depression before spoken of; the ventricle contained about a drachm of fluid.

There was no inflammatory attachment of the dura-mater to the pia-mater, and nothing to indicate that there had been any inflammatory action.

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The practical questions arising from the conditions found, were: Why has there been no paralysis of the right side, resulting from the compression of the left hemisphere of the brain? Did the absorption of the bones, other than the cranium, arise from brain irritation produced by these fungous tumors of the dura-mater, or from that of the abscess? Is there any relation—cause and effect—between the abscess and the tumors; if so, which was cause and which effect? To the first question we were unable to give any answer. To the second, our opinion was that the absorption was produced by brain irritation from the fungous tumors. To the third, we could find nothing to make us believe that to be the relation of cause and effect.

The history of the case, as learned from the husband and daughter is, that Mrs Pierce had never had a severe illness during her lifetime, but had, up to two years since, enjoyed vigorous health. There was no history of scrofulous or tuberculous taint in her system; she had never had rheumatism; had suffered from headache but few times in her life; had been much of a reader, and could read or write continuously for a long time with no ill feeling. She had at no time felt aching of the bones of the cranium or elsewhere.

About two years since, on a Sunday, after returning from church, and reading awhile, she suddenly became irrational; this continued for several minutes, when she said she felt drowsy; this continued for a short time; since then it had been more difficult to attract her attention, it being necessary to speak several times, although when obtained, her mind seemed perfectly clear, her hearing being all of the time unaffected. She would, latterly, forget that she had asked a question, and repeat, even several times.

Her memory of things, learned long since, remained; she repeating psalms, hymns, &c., up to the day of her death. Since last spring she has complained of giddiness, and an oppression of the brain, just on rising in the morning, not afterward through the day. About May 1st, 1875, her daughter noticed, while combing her hair, a swelling on the left side of the head, corresponding to the larger opening in the parietal bone, and thought it a "when;" a second was seen about six

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weeks afterwards, back of the first; two weeks before the arm was fractured, the one on the frontal bone was observed, but no especial thought was given them, as they were not tender on pressure, and produced no seeming inconvenience.

After the attack of paralysis, having still complete use of the right side, when told to straighten the leg, she would draw it up, when told to move it in any particular direction would move it in the opposite, although she perfectly understood, and would repeat the direction given.

In examining for a description of these tumors of the dura-mater, I found a very short description in Erichsen, but could find nothing in some half a dozen other works on Surgery, that would apply to this case. Is the case a rare one? Were we correct in our deductions from the *post mortem?*

This paper was accidentally omitted in publishing the transactions of 1876.
Secretary.

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The undersigned committee, appointed to report upon the death of our late confrere, Dr. J. S. Redfield, of Fort Scott, beg leave to submit the following:

Dr. J. S. Redfield died suddenly, at Fort Scott, Kansas, on June 15th, 1876, at the age of 56 years. He graduated with honor at Jefferson Medical College in 1850. He immigrated to Kansas in the year 1858, and was actively engaged in the practice of his profession until enshrouded by death's folding wings.

He was commissioned surgeon of the Sixth Kansas regiment of volunteers, served with credit and distinction, and remained with it until the regiment was disbanded. He was the president of this society for the year 1875. His professional attainments were of the highest order, and were combined with sterling integrity, an exalted sense of honor, and genial social qualities, which endeared him to all, and which will embalm him in our memories. While we deplore his loss, we rejoice that he has left an example worthy our closest imitation.

Respectfully submitted,

G. R. BALDWIN,
T. SINKS,
W. D. HOOVER. } *Committee.*

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